



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

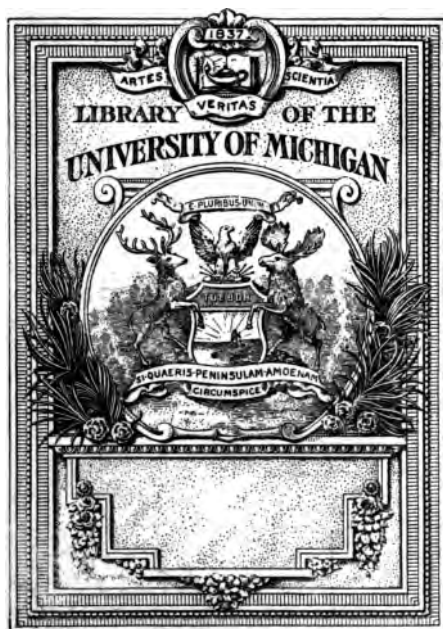
- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

**A** 441466

**Proceedings of the  
Conference on the  
Teaching of Hygiene  
and Temperance in  
the Universities and  
Schools of the British  
Empire . . . . .**





all

PROCEEDINGS  
OF  
THE CONFERENCE  
ON THE  
**Teaching of Hygiene and Temperance in the  
Universities and Schools of the  
British Empire**

HELD AT THE  
EXAMINATION HALL, VICTORIA EMBANKMENT,  
LONDON, S.W.

*Chairmen :*

LORD STRATHCONA, G.C.M.G.  
SIR JOHN COCKBURN, K.C.M.G.  
SIR JOHN GORST, F.R.S., K.C., M.P.

**London**  
JOHN BALE, SONS & DANIELSSON, LIMITED  
OXFORD HOUSE  
88-91, GREAT TITCHFIELD STREET, OXFORD STREET, W  
1907



## PREFACE.

---

IN the early part of this year some of those interested in securing the Teaching of Hygiene and Temperance in the Elementary and Secondary Schools of the United Kingdom, determined to utilise the visit of many officials and others from the Colonies, in connection with the Colonial Conference, to obtain information as to the steps that had been already taken in the outlying parts of the Empire to introduce this teaching. A Committee was formed consisting of representatives of the Board of Hygiene and Temperance, of the Public Health Committee of the British Medical Association, and of the Committee of Medical Men, with the late Sir William Broadbent at its head, which had drawn up and presented to Mr. Birrell when he was Minister for Education, an important Memorandum on the Teaching of Hygiene and Temperance. This Committee called together a Conference of those engaged in the work of Education, whether as Members of Education Authorities, as Managers of Schools, or as Teachers, and secured the help of officially appointed delegates from all the self-governing Colonies, the Crown Colonies, and from several European States, who read papers on the



progress made in this branch of Education in their respective countries. The Committee was also fortunate in securing the sympathetic support of the Secretary of State for the Colonies, the Earl of Elgin, K.G., and as Chairmen of the morning and afternoon Sessions, Lord Strathcona and Mount Royal, Sir John E. Gorst, and Sir John Cockburn.

At the close of the Conference it was generally felt that an effort should be made to secure the publication, not only of the valuable papers that had been read, but of a condensed report, at least, of the many interesting speeches that had contributed so much to the success of the Conference. The thanks of those who were responsible for organising the Conference are due to Mr. Bale for undertaking the publication of the Proceedings of the Conference, and it is hoped that a knowledge of what is being done to teach Hygiene and Temperance in distant parts of the Empire will stimulate us at home to secure for the children of this Kingdom advantages at least as great as those enjoyed by their Colonial cousins.

Every page of the little volume contains matter of interest to those responsible for the education of our children, but I may be pardoned for calling attention to the excellent work done in our Crown Colonies. Mr. Chamberlain, when Secretary of State for the Colonies, initiated the system and

insisted upon the importance of adapting the teaching to the special and peculiar needs of the peoples dwelling in varying climates and exposed to differing epidemic and endemic scourges. Naked African children are now taught how to protect themselves from Malaria, not by obedience to cut and dried rules, but by the actual observation of the facts which the most advanced science has revealed. If the methods of science are not inappropriate for the Aborigines of Africa, they cannot be unsuitable for the far more developed children of the villages and towns and even of the slums of Great Britain. The secret of the success of the work in these distant Crown Colonies has been twofold, in the first place the teaching has had a direct bearing upon the special needs of the community and has not been the teaching of science at large, and in the second place it has been scientific and not didactic. To secure similar success in this country we must follow along the same path. We must ask ourselves what are the physical evils our population has most to dread and must teach them all that the most exact science can tell them as to the best means to combat them, and we must not be afraid of adopting the *methods* of science in imparting the *lessons* of science.

A. PEARCE GOULD.



## CONTENTS.

---

### *MORNING SESSION.*

The Right Hon. Lord Strathcona and Mount Royal, G.C.M.G.,  
in the Chair.

	PAGE
Chairman's Opening Remarks ... ..	1
Address by Pearce Gould, Esq., M.S. ... ..	5
Remarks by Mr. Deakin ... ..	9
The Teaching of Temperance in the Schools of Ontario, Canada. By J. L. Hughes, Esq. ... ..	14
The Teaching of Hygiene and Temperance in Australia. By Sir Philip Jones, M.D. ... ..	18
The Teaching of Hygiene and Temperance in New Zealand. By Canon MacMurray ... ..	80
Remarks by Alfred Mosely, Esq. ... ..	41
The Teaching of Hygiene and Temperance in the Crown Colonies. By James Cantlie, Esq., M.B. ... ..	45
<b>DISCUSSION :—</b>	
The Chairman, Sir John Cockburn, K.C.M.G. ...	55
Mark Cohen, Esq. ... ..	55
—, Sykes, Esq. ... ..	57
Rev. J. Barr ... ..	60
Miss Boyce Smith ... ..	61
Perceval Sharpe, Esq. ... ..	62
Sir William Collins, M.P. ... ..	63
Miss Alice Ravenhill ... ..	65
Mrs. Rushton ... ..	66
Lady Biddulph ... ..	68

## CONTENTS.

### *AFTERNOON SESSION.*

The Right Hon. Sir John E. Gorst, K.G., in the Chair.

	PAGE
Chairman's Opening Remarks ... ..	69
The Teaching of Hygiene in Schools in France. By Dr. Robert Dinet, Paris ... ..	73
The Teaching of Hygiene in Schools and Colleges. By Dr. Foveau de Courmelles, Paris ... ..	80
The Teaching of Hygiene and Temperance in Scan- dinavia. By Dr. Helenius-Seppälä ... ..	90
On Methods of Teaching Hygiene and Temperance in Primary Schools. By Miss Hoskyns-Abrahall, M.A. ... ..	98
The Teaching of Hygiene and Temperance in Secondary Schools and Universities. By Sir Victor Horsley, F.R.S. ... ..	111
DISCUSSION :—	
The Chairman, The Right Hon. Sir John Gorst, K.G. ... ..	120
Sir Lauder Brunton, F.R.S. ... ..	121
The Hon. W. Jenkins ... ..	122
Andrew Johnson, Esq.... ... ..	122
Dr. Kimmins ... ..	123
Sir Thomas Fuller ... ..	123
Dr. Fletcher ... ..	124
—, Pickles, Esq.... ... ..	125
Mrs. Leslie Mackenzie ... ..	127
Professor Sims Woodhead, F.R.S. ... ..	127

CONFERENCE  
ON THE  
TEACHING OF HYGIENE AND TEMPERANCE  
IN  
THE UNIVERSITIES AND SCHOOLS OF THE  
BRITISH EMPIRE.

*TUESDAY, APRIL 23rd, 1907.*

---

**Morning Session.**

The Right Hon. LORD STRATHCONA AND MOUNT ROYAL, G.C.M.G.  
IN THE CHAIR.

---

THE CHAIRMAN: Mr. Pearce Gould, Ladies and Gentlemen,—It is with very great pleasure that I am here with you this morning. I really have very little to say with regard to the motives of those who are acting in this matter with Mr. Pearce Gould, but you are all aware that the object of the meeting is in furtherance of a movement to ensure that all children of this country shall receive systematic instruction in Hygiene and Temperance—in other words, in the care of their body. In this country, so far, I am afraid there has been very little of this kind of teaching in the Elementary Schools. Happily the case is different in some of the out-lying portions of the Empire,

and of one of them I can speak myself, that of Canada. In the province of Ontario, for the last twenty years or more, the teaching of Hygiene and Temperance has had the greatest attention, and I think I may say that it has been productive of very great good indeed. Looking back a great many years—thirty-seven years, I should think—I can remember the first Executive Council for the North West Territory, that which has since been carved out into the important provinces of Manitoba and Saskatchewan; a very small body it was indeed, but perhaps that was no great objection. There were only four members of it, including the Lieutenant-Governor, and I happened to be one of them. The first Bill introduced which was made into an Act through the work of that body, I had the privilege of presenting, and it was a Bill for the prohibition of the introduction of intoxicating liquors into that great territory. Of course the circumstances there then were very different from what they are to-day. The population consisted chiefly of natives, Indians, with only a few white people scattered here and there. That measure had a most salutary effect. No intoxicating drinks were permitted to enter the territory except by licence issued by the Governor, and I am happy to say that to-day, though this Act is no longer in operation, its results are still to be

seen. For myself, I may say that I think it is generally, and almost invariably, better to lead than to attempt to drive the people. I am afraid that legislation bringing about absolute prohibition would be impracticable. However, if you begin with the child in its early years the matter is a very different one indeed. You advise that child during its impressionable years as to what is best for itself and for the people of the country generally, and that child will grow up with the belief and with the determination that he for his part will do his best, not only for himself, but in regard to what is best for others. At the present time the Dominion of Canada is, as you know, a nation, the first of those within the Empire, created within our Empire. The people of that nation are not very numerous just now, perhaps seven or eight millions, but within half a century the population will unquestionably be equal in number to that of the United Kingdom. And that nation is a nation of temperance, I am glad to say. I agree with Sir Wilfred Laurier, our Premier of that Dominion, when he says—and I was aware to some extent of his views—that throughout the province of Ontario and the other Western provinces it would be almost impossible to find intoxicating drinks in the homes of any of the farmers, and in other provinces, where to some extent it is



#### 4     TEACHING OF HYGIENE AND TEMPERANCE

used, it is only in the greatest moderation. And let me, while speaking of Sir Wilfred, assure you that it would have been a very great pleasure to him to have been present with you this morning. I am also commissioned by the Secretary of State for the Colonies, Lord Elgin, to say that to him it is a very great regret that he is unable to be here with you. He has the greatest sympathy with the objects which you have in view. We have here a distinguished member of his profession who, a short time ago, told me that he was delighted to have been in Canada last year with the members of the British Medical Association, for he came to know there a nation that was truly temperate, one which was endeavouring to grow up, and have its people grow up, as such. I refer to Sir Victor Horsley.

I think I have now really exhausted all that it is necessary for me to say. I beg, however, to add that we are no longer contented with the teaching of the three R's, as they are called, to-day. We are advancing, and we must go on advancing, and surely the process of informing each individual what is best for his body and his life, is one of those subjects which ought to have the best and strongest possible support. That is the object of those who have organised this meeting, and amongst these are Sir Thomas Barlow, Mr. Pearce Gould, Sir

Victor Horsley, Sir Lauder Brunton, and others of the most distinguished members of the medical profession. While I have put these few words before you, with the object of introducing the deliberations, I think it will be better that I, who am in a sense an outsider, although delighted to be here, should call for explanations on the subject from those who can do it so very efficiently. We have, amongst others, a paper from a gentleman in Canada, who is the head of the Education Department in Ontario, and also from gentlemen representing Australia, New Zealand, the United States of America—for we also claim to be Americans in Canada, and while our friends of the United States, with whom we are on the most cordial and friendly terms possible, call themselves Americans, we are equally Americans with them; and Americans, let me say, than whom none are more loyal to Crown and Empire. And I now propose to call upon Mr. Pearce Gould.

Mr. PEARCE GOULD, M.S., F.R.C.S.: My Lord, Ladies and Gentlemen,—I am sure I shall express the feeling of every one here in first of all thanking you, Lord Strathcona, not only for your extreme kindness in coming here when, as we know, you are so specially pressed and full of engagements, and when it must be a matter of personal inconvenience to yourself to come, but

## 6      TEACHING OF HYGIENE AND TEMPERANCE

also for the extremely kind and helpful words with which you have opened this Conference. You have spoken of yourself, my Lord, as an outsider in this movement. But after what you have told us of the part which you took in initiating the Temperance policy of Canada, we claim you as one of the helpers and pioneers in the movement, in furtherance of which we are met here to-day. It must be an immense gratification to you, in looking back upon your work there, to recall the words of Sir Victor Horsley, who in visiting that Dominion spoke of the pleasure it gave him to be there, and to find it inhabited by a temperate people. There is no doubt that your action in the years gone by has had a most important effect in leading to that happy result. As to the object of this Conference, very few words will be necessary from me. I think the programme, which you have in your hands, explains the object fairly well. All here know that for some time past efforts have been made to introduce the teaching of Hygiene and Temperance into the Schools of this country. I will not weary you by mentioning the various details of the movement so far as it has gone, but you know we have presented a largely signed Memorial from the medical profession to the Minister of Education, and two deputations representing the Committee of medical men interested

in this subject, and others, have waited upon two succeeding Ministers of Education, and various conferences and discussions have been held at which papers have been read; altogether a very great amount of work has been done. At the recent Meeting of Teachers at Oxford there was a very interesting, I may say a remarkable, meeting held in the Great Hall at Christ Church, a Breakfast Meeting organised by the National Temperance League, and largely attended. At that meeting this subject of the teaching of Temperance and Hygiene in the Elementary Schools of this country was raised, and for the twentieth time, I think, brought prominently before the teachers of this country, and at that meeting one gentleman—I think I had better not mention his name, but I hope he will be here to-day to speak for himself—said that he had been for some time trying to guard the teachers against the introduction of this subject into the Code, but that he felt now that the game was up, that the time for resisting had passed by, and that they must properly teach this subject in all the Elementary Schools in the country. That statement was received with very great enthusiasm by the meeting, and it marks a very distinct stage in the progress of this important question. Now, at this morning's session of this Conference, the special and par-

ticular object is to acquire information as to what has been done, in the self-governing Colonies particularly, of this Empire. We are all at this particular moment specially interested in Imperial questions, and particularly in the Colonial part of our Empire. We are all thinking day by day of the doings of the Colonial Conference, and it was thought that it would be an extremely fitting occasion upon which to ask duly appointed representatives of the various Colonies and Dependencies of this Empire to meet here and tell us what they are doing in their own country and thereby to enlighten the people of this country, and, to use the Prince of Wales's celebrated phrase, to make our own people wake up and see how we fail to respond to the urgent calls which are made upon this Empire; and to try to bring strong public pressure to bear upon our governing bodies, the Education Board in particular, to help us more efficiently in this great matter. This Congress is chiefly to gain information as to what is being done in our Colonies and Dependencies; and at its close I hope we shall pass wise and well-considered resolutions, expressing our conviction of the particular line along which true progress can alone be achieved.

I think, my Lord, that is the only explanation which I need offer concerning the calling together

of this Conference, and I venture to tender to you, on behalf of the meeting, our sincere thanks for your attendance and for the kindly words you have spoken in introducing our deliberations.

LORD STRATHCONA: It is a great pleasure to me, Ladies and Gentlemen, as I know it will be also to you, to see that Mr. Deakin has been able to come, and to show his sympathy with the Conference. But his engagements are very numerous and very important, and he has to attend the Colonial Conference in a very few minutes, so I will ask him to say a few words now.

MR. DEAKIN said: My Lord, Ladies and Gentlemen,—Your Chairman summed up the purposes of my visit this morning when he said it is to indicate the most cordial sympathy and the most entire agreement with the purposes of this gathering on the part, I think I may say without qualification, of the people of Australia. I have not come here to intervene between this meeting and those ladies and gentlemen of long experience in regard to this question, who have met here. It is only at the request of my old friend, if I may so call him, the gentleman whose influence extends far beyond the bounds even of the great Dominion which he so admirably represents—it is only at his bidding that I rise to add one word or two in reference to this movement, in order that it may not be merely a formal appear-



## 10    TEACHING OF HYGIENE AND TEMPERANCE

ance, before I leave you for the Conference, to attend which I have travelled 12,000 miles. I may say that Australia needs no other representatives than those whose names you have on this paper. Sir Philip Jones and Sir John Cockburn are intimately acquainted with Australian practice and Australian opinion, and it would be quite exceeding my function here to-day were I to offer you my own much less perfect acquaintance. But I speak for a Parliament within whose scope education does not practically come, but which, by reason of its relation with the whole of the people of Australia, necessarily depends as much upon the educational systems which the States control, and which the Universities continue, as do those bodies more directly charged with the responsibility in relation to those schools. Speaking generally, you probably know that throughout Australia the importance of this teaching is not only recognised as a matter of judgment, but it is acted upon as a matter of administration and daily teaching. And for our part, my Lord, the only obstacles that we have met have been those which I venture to call the inconsiderate, if not the unintelligent. We have yet to hear any sound argument worthy of a moment's weighing against the introduction of this teaching. We have yet to learn for what class, what sex, what position in life this most elementary

knowledge is unnecessary. We have yet to discover why the well-known conditions of life in this particular—and a very practical particular it is—are not to be met by training. I will not ask the question what education is, or what it covers, because I assume that this Conference is limited in its time, and that subject is an exhaustive one; but I will content myself with asking what, if Matthew Arnold's statement be true, and it surely is, that conduct is three-fourths of life, and if the medical statement is true, and it surely is, that health is ninety-nine hundredths of life, whether conduct and health are not worth studying, and, indeed, what can be more worth studying? When I have said that, Ladies and Gentlemen, I have said all that it is probably my part to attempt; but I may say that although this teaching is imparted in practically all our schools, and is being made, I believe, quite effective, we are not yet satisfied even with that, and we do not intend to be. We should regard any condition of satisfaction with any part of the education which we are giving, as a proof that we had not yet measured its possibilities. We are giving rudimentary training in this matter, because no more can be attempted, but we recognise in this, as in every other branch of learning, that the science of education, as it is opening before us to-day, is altering, I will not say day



by day, but certainly decade by decade, and in many particulars it is altering year by year, and the object of the Australian people is to endeavour to keep themselves abreast of the best educational thought of the world. Now you will say that we lag far behind you and others. True ; but it is something to recognise that we are lagging behind, something to recognise that you are going ahead. Fortunately for me, perhaps, I do not know exactly where you stand in this country on this question. No doubt I ought to know, but it is best to make a frank admission of ignorance, because I find it impossible to speak here of any New World conditions without being supposed to be criticising and reflecting upon Old World conditions, of which I know less than I ought to know. But I have nothing but Australia in my mind when I say that the motto of our country is "Advance, Australia !" and in nothing do we look forward with more hope, more anticipation, more confidence, than to advance in matters of education.

The CHAIRMAN: I am sure it is your great desire, Ladies and Gentlemen, that we should join in thanking most cordially, Mr. Deakin, for his address, containing words of the greatest interest, and for his most excellent advice. Mr. Deakin has to leave for the Imperial Conference, and on the part of those here present, I thank

you, Mr. Deakin, most cordially, for your kind consideration.

MR. DEAKIN : My dear Lord Strathcona, we are at the Antipodes, that is to say, some of your practices are Antipodean. What you should thank me for I do not know. I am here to thank those ladies and gentlemen who are contemplating and doing this work ; I am not here to confer anything on this gathering. I am here to express appreciation and encouragement to those who are doing the work. It would be the greatest mistake to confuse those whose interesting function is to say that we admire you and we hope you will go on and do all you can with those who do it. I, of course, take your thanks as representing the cordial goodwill with which every movement is met in this country. I do not suppose I deserve it, but I thank you for your cordiality, and now I take my leave.

The following paper was then read by Mr. Pearce Gould.

THE TEACHING OF TEMPERANCE IN THE  
SCHOOLS OF ONTARIO, CANADA.

By JAMES L. HUGHES.

*Chief Inspector of Schools, Toronto.*

THE teaching of the fundamental principles of the development of human power physically, intellectually and morally, is clearly one of the most important departments of all educational work. The self-hood of the child is now recognised as the correlating centre around which all teaching and training should be conducted, and to which all the subjects in the school programme should be related. The value of teaching is no longer estimated by the amount of knowledge communicated to the child, but by the amount of power, self-control and self-direction developed in him. This view of education has necessarily led to the teaching of such subjects as hygiene and temperance in schools and colleges. Every child should have the elements of his physical, intellectual and moral power revealed to him, and he should also be taught the nature of those things which may rob him of his power.

The true teaching of hygiene in the schools is a process by which the child becomes acquainted with the proper way of preserving the elements of his powers, and of developing them to their fullest limits. This teaching should make the child con-

scious of his power and of the great value of his self-hood in aiding the progress of humanity. It should lead him to see the direct inter-relationship between the physical, the mental and the moral powers with which he is endowed; and having thus led him to a true reverence for his power, and a true recognition of its value, not only to himself, but to humanity, it should teach him the best means of increasing power, and it should warn him against those practices which inevitably weaken or destroy it.

The educational authorities of the Province of Ontario decided twenty years ago that the children in all the schools of Ontario should receive instruction in regard to the value of temperance and the evils of intemperance. The teaching of these subjects is naturally considered as a department of the study of physiology and hygiene.

The course of study prescribed by the Education Department of the Province in Physiology and Hygiene, is as follows :—

*Form I.*—General observations regarding the body. Simple lessons on the hair, teeth, skin and nails, and on the care of the organs of the senses. Very simple lessons on eating, drinking, breathing, sleeping and cleanliness, for the purpose of forming good habits.

*Form II.*—Course in Form I. continued. Simple

## 16    TEACHING OF HYGIENE AND TEMPERANCE

lessons in digestion, exercise, cleanliness and ventilation. Lessons on the organs of the body, that can be taught by the Nature Study method. General effects of tea, coffee, alcohol and tobacco.

*Form III.*—The Course of Form II. continued, with more special study of the growth, waste and renewal of the body, and the effects of narcotics and stimulants on the various processes.

*Form IV.*—General observations on bones and muscles, elementary study of the organs of circulation and respiration, and their functions. Ventilation: the relation of respiration and circulation to health, with special reference to disinfectants, exercise and clothing. Vocal organs and their functions; cultivation and care of the voice. Relation of the nervous system to health and exercise. Continued study of the effects of stimulants and narcotics, especially on the nervous system.

The Education Department had a special manual on Hygiene and Temperance prepared for use in the schools, so that the instruction is given by the regular teachers in this as in other subjects. There is a special teacher of Hygiene and Temperance in the normal schools in which the teachers are trained. The Legislature has provided for the training of all teachers of Public or Elementary Schools, in Normal Schools, or Training Colleges.

The teaching of Hygiene and Temperance in the

schools has given general satisfaction. It is not claimed that such teaching will of itself totally eradicate the evils of intemperance. Knowledge alone does not make or transform character. Correct knowledge is, however, the surest basis on which a true life may be most reasonably established and directed. Emotional opposition to intemperance, or to any other evil, is a very desirable element in the training of a child, but it is not sufficient. A man should know as well as feel. The truly trained man guides his impulses by wisdom. We should make our children wise, therefore, in regard to those things that will aid them in reaching higher conditions of power, and we should reveal to them the rocks on which character may be wrecked, and human power destroyed.

The teachings of science in regard to the effects of stimulants and narcotics on the system form a solid basis for the guidance of men and women who wish to live up to the standard of their own enlightened reason.

THE TEACHING OF HYGIENE AND  
TEMPERANCE IN AUSTRALIA.

By Sir PHILIP JONES, M.D.

MY LORD, LADIES, AND GENTLEMEN,—I think that an explanation of my appearance before this Conference is demanded. I apprehend that what I have to do is to tell you, if I can, what is being done in the Schools and Universities of Australia in the teaching of Hygiene and Temperance. Now the most important part of such a statement must necessarily be that which relates to the teaching of these subjects in the Public or State Schools, and it is precisely with these schools that I am least acquainted. My particular attention for some years has been directed to higher education, as represented by the University of Sydney, and to a subject at the opposite end of the ladder of education, namely, the Establishment of Free Kindergarten Schools in the poorer parts of Sydney and other towns. It would therefore have been of much advantage in the elucidation of this subject, if someone intimately acquainted with the inner working of the Public Schools had been here to take the place which I now occupy. I understand, however, that no such person is available.

I can but do my best and you will pardon my shortcomings, especially when I tell you that it was



only a few days ago that I became aware that I should be expected to read a paper on the subject which we are here this morning to discuss.

Before dealing with the question, it will perhaps be advisable for me to give you some facts and figures relating to Australia, about which there still seems to be a good deal of ignorance in the minds of many otherwise well-informed persons. Australia is about as large as Europe, it has a population of between four and five millions (the last census was taken in 1901, and it was then well over four millions), living for the most part in the coastal districts, vast tracts of land in the interior of the island continent being quite unoccupied. There are six States (or as they were called before Federation, five years ago, Colonies) in the Commonwealth: New South Wales and Queensland in the east, Victoria, South Australia, and Tasmania in the south, and Western Australia in the west, its capital city, Perth, being 2,000 miles distant from Sydney. Two and a half millions of the population live in New South Wales and Victoria, and the capital cities of these two States, Sydney and Melbourne respectively, have each a population of half a million. At the last census, the Capital City of South Australia, Adelaide, had a population of 162,261; Brisbane, the capital of Queensland, of 119,428; Hobart, the capital of Tasmania, of



36,604, and Perth, the capital of Western Australia, of 36,274.

Each State has its own Legislature and its own Education Act. The Commonwealth Government have no voice in the matter of Education. There is a general agreement in the provisions of the Education Acts, which in each case is administered by a Minister responsible to the Legislature of his State.

Public or State Schools of the primary character have been opened in all parts of the country, some in very remote parts. About 20 per cent. of the children in Australia are educated in private schools or at home, the rest are to be found in the State Schools, the number on the roll being 661,000 and the average attendance 445,000. Attendance is compulsory, and is free in all the States except New South Wales, where a charge of threepence per week is made; but this is remitted if it can be shown that the parents or guardians are unable to pay. Practically, therefore, Education is free over the entire country. Pupils are admitted on reaching the age of six years. Four of the States have their own Universities, Sydney, Melbourne, Adelaide and Tasmania. We may now consider what is done in the teaching of Temperance and Hygiene in the Public Schools and in the Universities.

3760

*In New South Wales.*—In the Public Schools of New South Wales, prior to 1902, lessons on Temperance and Hygiene were given in a desultory fashion, but as no marks were given for these subjects, many teachers neglected the lessons and devoted their attention to other subjects. In that year, however, a definite place was assigned to Temperance in the curriculum, and marks were allotted for the subject. The improved results of this change have been gratifying. In the same year a lady doctor was appointed to give a course of instruction and lectures on Public and Domestic Hygiene to the elder girls attending the schools in the Metropolitan and Sub-Metropolitan area. The instruction given by this lady includes the laws of health, personal and domestic hygiene, sanitation of the house and its ventilation and drainage, the virtues of sunlight, pure air and water. In this connection I may state that the New South Wales Branch of the National Association for the Prevention of Consumption, with the consent and approval of the Minister of Education, supplied the schools with copies of its leaflet on the means of preventing infection and of generally preserving the health. The Minister directed that every head teacher should give to each child over nine years of age a copy of the leaflet, with directions to take it to his home; also that once in each

term the teacher should give a lesson on the subject matter of the leaflet to the whole school. Now as the prevention of consumption is mainly one of Hygiene, this arrangement may fairly be regarded as an instalment in the teaching of Hygiene.

*Victoria.*—In the Victorian State Schools lessons on Health and Temperance are given to all pupils above 9 years of age and the schools have been supplied with wall sheets on Temperance. The Education Act of Victoria of 1890, Clause 12, provides that “The secular instruction to be given in the State Schools shall, in the case of children over 9 years of age, include the teaching of lessons from some recognised lesson books on the laws of health and from some recognised Temperance lesson books.”

*Queensland.*—In Queensland the regulations enjoin upon all teachers the duty of impressing upon their pupils the principles of morality; and “a good manners” sheet has been issued to the schools.

*South Australia.*—In South Australia the regulations have for years required that the principles of morality should be taught and that special attention should be given to intemperance.

*Western Australia.*—In Western Australia the regulations as to the teaching of morality and especially the advantages of Temperance, is similar to that in force in South Australia.

*Tasmania.*—In Tasmania, regulations ordain that collective lessons shall be periodically given on Temperance and the laws of health.

In all the States instruction is given in cookery and drill, both of which have an important relation to Hygiene.

It should be mentioned here that religious instruction is given by the teachers in all the public schools, except those of Victoria and Queensland. This teaching is of a general character as contradistinguished from dogmatic or controversial theology. Provision is also made for the instruction of the pupils at certain hours by ministers or other authorised persons belonging to the several Protestant denominations. This teaching of the Christian religion must necessarily go towards inculcating Temperance and a reverent treatment of the body, or in other words, towards personal Hygiene.

*In Private Schools.*—So much for the teaching of Temperance and Hygiene in the State Schools. We have no means of ascertaining how much, if any, instruction in these subjects is given in the private schools of the country, but as a number of them have of late taught elementary science, which includes, of course, the chemistry of the atmosphere and human physiology, it is perhaps fair to assume that the laws of health are not entirely neglected in them.

*Free Kindergarten Schools.*—In the Free Kindergarten Schools mentioned in the earlier part of this paper and which are conducted strictly on the principles laid down by Froebel, morality, tidiness and cleanliness, are of course inculcated (they being of the very essence of the method) and with marked effect, not only on the children themselves, but reflexly on their parents. It is said that Kindergarten methods are adopted in the lower classes in the State Schools, but those who are qualified to judge affirm that properly equipped and staffed Kindergartens are not to be found in them.

*In the Universities.*—We now pass to the consideration of the teaching of Temperance and Hygiene in the Universities of Australia. No special instruction in Temperance is given in any of them, but Hygiene has a place in the medical curriculum in all.

*Sydney.*—In the University of Sydney a course of lectures on Public Health is delivered each year and attendance on it is compulsory in the case of medical students. It is not compulsory on students in the other Faculties.

Every year I, as lecturer on the Ethics of Medical Practice, impress upon the class the importance of Temperance and a proper care of the body, not only in the interests of the individual practitioner, but in the interests also of his patients.

*Melbourne.*—In the University of Melbourne, lectures on Hygiene and Public Health are delivered to the medical students.

*Adelaide.*—In the Adelaide University lectures on Hygiene are given during the course of the M.B. curriculum.

*Tasmania.*—In the University of Tasmania there does not appear to be any instruction given in Hygiene.

I am not aware of the existence of any Temperance Society in connection with the Universities, but the Students' Christian Union has secured a recognised place in all of them and its indirect influence makes for Temperance.

From all that I have said it will be seen that something is done in the Schools and Universities of Australia in the furtherance of Temperance and Hygiene. What the actual results of the teaching have been, cannot, of course, like all ethical results be measured in figures, but it is, I think, safe to say that since these subjects have been more systematically taught, a greater attention to cleanliness and an improvement in the manners and general conduct of both the children in the schools and the students in the Universities, have been observable.

Sir JOHN COCKBURN: My Lord, Ladies and Gentlemen,—I feel much honoured by being asked to address you, for Australia has already had a

fair innings. The Prime Minister, and so recognised an authority on New South Wales as Sir Philip Jones, having spoken, I think Australia's claims have for the moment been satisfied, and I should like to hear what the other great self-governing Colonies are doing. But perhaps you will permit me to say that I was much interested by the statements of the last speaker concerning the regulation relating to the teaching of Temperance in South Australia. I think I remember having framed it a great many years ago, and at that time in the face of much opposition, because, somehow or other, no matter what you seek to introduce into the curriculum of Primary Schools, you immediately find yourself faced with a precipice which at first appears to be unscalable. Teachers, of course, are always afraid of something else being added to the curriculum, and many scientific men are opposed to anything in the way of teaching what might be called, from their point of view, special subjects; although I do not think Temperance is a special subject at all. But be that as it may, the difficulties are great, so with the view to creating a public feeling on that subject, especially among teachers, I thought the wisest course, ten years ago, was to offer a prize to the Teachers in the Education Department for the best text-book and suggestions for the teaching of Temperance in



the State Schools. I did not know whether I should get any great classic work as the result of this offer, but I felt sure that this offer of some pecuniary inducement, and also the prospect of some "kudos" accruing to the prize winners, would create a large amount of public interest in the Department. I believe it had that effect, and since that time South Australia has introduced Temperance teaching in a systematic and scientific manner. I think the word "scientific" should be used in a somewhat diluted sense, because no strictly scientific teaching is possible in Elementary Schools, as the child has not arrived at an age when that accuracy which seems to belong to science as ascertained knowledge, is possible. One should adopt the methods which are known as Nature study, a combination of science and art, to treat the subject as a whole in its vital and important characteristics. Sir Philip Jones has alluded to the steps which have been taken towards the teaching of Hygiene in the Colony of New South Wales, and I may say the same steps have been taken in the other States. The Australian public allows no laxity in the observance of its laws. Every man and woman has a voice in the framing of the laws of the country, and these laws have to be obeyed, or else the Administration wants to know the reason why. I read with interest that one morning



at Sydney Court, a law having been passed against spitting on the public pavements, ten citizens were hauled before the Police Magistrate and fined 10s. apiece for the first offence, and I think that this way of tackling problems is the best ; there is no such thing as autocracy or tyranny. The restraining laws spring from the people themselves. It is simply the exercise of self-restraint, and those laws, having the consent of the public, are frankly obeyed by them. I notice that the University of Melbourne has lately taken a step in the right direction with regard to Hygiene among its undergraduates. We have throughout Australia a system of Cadet Corps in connection with the Public Schools. Of course all those in the schools undergo ordinary school drill, but in addition tens of thousands of our young population are specially enrolled in these Corps. Steps have been taken by the Commonwealth, under whose care and direction these Corps come, to give an explanation of the system to the whole of the young and rising generation in Australia. But the University of Melbourne has gone a step further, if I am rightly informed in this matter, and has made universal military service one of the conditions of undergraduateship. Every undergraduate in the University of Melbourne undergoes military training. And this is not only considered desirable by Australia from the point of

view of teaching every citizen to bear his part in defending the shores of the Colony, but also from a hygienic point of view. I think we are all agreed that there is nothing so good for setting up the individual physically as thorough drill. From that point of view universal drill is certainly to be recommended as a means of Hygienic teaching. But there is one word of warning that I have found it necessary to utter with regard to Temperance teaching in the Public Schools, and that is to avoid as far as possible exaggeration. I do not think it is wise to hang on the school-room walls charts showing the condition of the drunkard's stomach when it is in the last stage. And one has also to remember that these drawings are very highly coloured. Nor would I approve of such experiments as that of placing an oyster in a glass of whisky, and showing the children how impossible it is to digest shell-fish if you take spirits. You never get quite those conditions actually, and I certainly think that the best kind of teaching avoids these exaggerations. I am sure there is quite enough to be made out of the plain truth in this matter of warning children against alcohol. We well know, on whatever other points we may disagree, that alcohol weakens the will, spoils the wind, generally causes rigidity of the tissues, and brings on premature old age. We also know that

the healthy individual, especially the young one, is very much better without alcohol. And I must pay one tribute to the Catholic teaching in Australia. In South Australia—I do not know whether it is the case throughout Australia generally, or whether it is true in the Catholic world generally—but in South Australia the Catholic children abstain from alcoholic liquors until they reach the age of 21. By that time the child will have learned the value of doing without that liquor, and is likely to be a much stronger individual. I did not come here with the object of saying anything, and therefore I will not detain you longer.

THE TEACHING OF HYGIENE  
AND TEMPERANCE IN NEW ZEALAND.

By Canon MacMURRAY.

MY LORD, LADIES AND GENTLEMEN,—I must make an apology to you for taking the place of Mr. Hogben, the Inspector General of Education in New Zealand. Mr. Hogben is an expert, and although in many directions I quite agree with him in the matter of education, still what he would have said to you would have come with more authority than it could from me. I have come to this country not for the purpose of teaching English people on the subject of education; I have been sent to this

country by a number of New Zealanders who think that the people of England, the United States and Canada, may be able to teach us in New Zealand something at any rate on the matter of secondary education. And I have come to this country and I intend to proceed to the United States and Canada, for the purpose of investigating the conditions of school teaching; therefore, I want you to distinctly understand that I have come to this country as a learner, not as a teacher. I shall begin what I have to say by dealing with primary schools in New Zealand. When a child goes to a primary school he will be influenced from the day of his entry by three things: first, his teachers, secondly, his surroundings and the school buildings and, thirdly, by the children with whom he associates. Now, the teacher is, in my judgment, one of the most important factors in a child's life, and if you have not got the right sort of teacher you cannot be expected to turn out the right sort of children into the community. And when I find that teachers in some committees are paid wages that ought not to be offered to them, I am astonished to find so many teachers capable, earnest, enthusiastic and faithful in the discharge of their duties. I must say that, although I do not think our teachers in New Zealand are paid sufficiently, yet their salaries compare very favourably with the salaries I have noted

in other places. We do try to get the best stamp of teacher for our children, and we do take some pains to see that the teachers are instructed in the principles of Hygiene and Temperance. Every teacher who desires to get a certificate of a higher class must, before he or she can do so, pass an examination in the laws of health as a compulsory subject. And amongst the optional subjects is one which is classed as Hygiene in which is incorporated a great deal of very important information. Just let me read to you what the syllabus that the candidate will be examined in prescribes; but before doing so I should say that the majority of our head teachers are classed either as C or D. To be so classed examinations must be passed. Up to 1906 elementary human Physiology was a compulsory subject for the D certificate. It is now only an optional subject. For the C certificate, "the laws of health as applied to school premises and scholars and teachers," is a compulsory subject, and there is also an optional subject, termed "Hygiene," which is thus described: "The candidate will be required to answer questions on elementary physiology and anatomy; on food and food stuffs; on water and beverages; on air and deleterious impurities of air; on fermentation and putrefaction; on cleanliness and contagion; the characters of the chief contagious and infectious diseases and

on preventive measures ; on clothing ; on ventilation ; on the disposal of refuse, and on sanitary precautions generally." I think that where our system in New Zealand is defective is, that we do not make this compulsory upon all teachers who are likely to reach the position of headmaster or headmistress. Every teacher is required to give moral instruction to the children, and when I take up the syllabus I find such things as this : "The teacher must inculcate the formation of habits, that is, order, tidiness at home, in school premises, in the street, tidiness in dress and person, punctuality and regularity at school and elsewhere, cleanliness of person, hands, face, teeth, heads, of clothes, about the house and in school ; clean talk and clean thoughts, pure minds and pure deeds, truthfulness in word and deed, self-control, patience, temperance in eating and drinking, duties in relation to our own bodies and minds," and so forth. You will see, then, that a very great deal depends on the personality of the teacher, and I am thankful to say that in New Zealand we have a class of teachers who are very keenly alive to the importance of Hygiene and of Temperance ; and I think that as regards the latter abundant evidence of the success of those teachers in relation to Temperance is shown at every triennial general election, when a very large proportion of the young New Zealanders



are found going to the poll and expressing their opinions on the question of prohibition or otherwise, on the reduction of licences or otherwise, and I think it will be found that a great proportion of young New Zealanders vote either for prohibition or for, at any rate, a reduction of licences. Then we come to the hygiene of buildings. I believe that most of the architects now employed by Boards of Education are gentlemen who are endeavouring intelligently to give the best hygienic conditions to schoolchildren. It is not always easy to get an architect without a fad, especially for some particular kind of Art, and one who will not relegate Hygiene to a very secondary position. I notice from the papers that there is at the present time a controversy between Art and Commerce in Regent Street, and I saw that one gentleman stated that in that controversy Art was going to win. I am not competent to express an opinion on the subject, but I do know this, that I have often seen a controversy between Art and Hygiene, and there is a stern responsibility laid on those who are answerable for the education of the children if they do not take care that Hygiene wins in every case. I know very little about the conditions of educational buildings in this country; I have not been in very many, but I was in one the other day, one that I was greatly impressed with as regards their methods of

teaching. The wonderful results that they had produced in that great institution impressed me very greatly. But one thing I noticed, they had their workshops in the basement storey, where not a ray of heaven's light could get in, and where they did the whole of the work by electric light. I was told that the exigencies of London required the utilisation of every inch of space. That may be so, but in the presence of those exigencies, looking at those growing lads I could only be sore at heart, and I thanked God that in New Zealand those exigencies do not exist. I was at a primary school in England not long ago, and the building was a picturesque building, I think of the Tudor style of architecture, with narrow little slits of windows; and I saw pallid-faced children pouring out of that school; and I could not help thinking that the architects ought to remember that the world has progressed in the interval between the reigns of Edward VI. and Edward VII. I feel very strongly that in a city like London, the greatest commercial city in the world, where the great commercial principle that the value of a commodity is in direct proportion to its utility and its scarcity obtains, it ought to be applied as regards sunlight and fresh air for the education of little children. Thank God in New Zealand we have sunlight, and we take care that our children get it.



And now as regards the children. The children are the third factor. We in New Zealand have a great advantage, inasmuch as the whole conditions of the children of the schools are, I suppose, somewhat better than they can possibly be in older countries, and therefore I do not think we ought to take quite so much credit for the advance of our children in these directions. In twenty-two years of Colonial life, I cannot now call to mind seeing a definite instance of a hungry child. And I find in almost every little home in the Colonies a bath—a bath that is used. Therefore, in our school buildings there is no necessity to make provision for bathing children, such as is to be found in Germany and in other countries. A bath, I am certain, is a very important factor in raising, not merely the physical condition, but also the moral condition of the children. But, thank God, we do not need it in our schools; in New Zealand there are baths in the homes. Our children are well-fed and clean physically; they are a fine lot of little animals, as fine as you will see anywhere. Sir John Gorst was out in New Zealand a few months ago, and I heard him speak. He said he, as Minister of Education, had a wide experience of primary schools in this country and on the continent of Europe, and he could say, without any hesitation whatever, that he never saw anywhere such fine children physically

as he saw in New Zealand. Now that was the testimony of a former Minister of Education of this country, and I believe there is a very great deal of truth in it, because when you have children who are well and fed regularly, and when you have children the conditions of whose lives ensure cleanliness with fresh air and sunlight, you have secured health in those children. But we are not content with that. In the schools we give them distinct direct instruction. As I have told you, the teachers are enjoined to inculcate the principles of Hygiene and Temperance on the children, and when the child has passed through the school and is going out, he may sit for an examination to qualify for a free place in the secondary school. I will read you three questions which were set in the papers last year for the children of the VII. Standard who wanted to get free places in the secondary school. "What is meant by digestion? Give an account of the process of digestion." "What is an infectious disease? Mention the symptoms of any three infectious diseases that occur in this country. What precautions should be taken in the event of an outbreak in a household?" "What are the differences between the air drawn into the lungs and that breathed out from them?"

But in addition to direct instruction, the child gets physical exercises. Now, I want you to notice

that the Education Act declares it to be the duty of the Education Board in each district "to cause physical drill to be taught to all boys and girls over the age of 8 years attending the public schools," and further, "In public schools provision shall be made for the instruction in military drill of all boys."

Now perhaps you would like me to tell you something of what the Inspectors say as regards the results of this physical instruction in the different school districts. I will take the Inspectors at Wellington. They report that physical instruction in our schools consists of free exercises and exercises with clubs, dumb bells, or poles. Proper breathing exercises should accompany all physical training, and a correct posture at writing or other lessons should receive more attention. Military drill is making marked progress in our large schools. They then go on to say that the physical instruction was marked *good* in sixty-nine schools, *satisfactory* in forty-three, and *fair* in the remainder. The Nelson inspectors report that the physical instruction continues to improve, and to become more general. A notice sent out early in the year *re* the method of conducting breathing exercises, has been, we find, generally acted upon, short practices being given daily, and often twice a day. These, if rightly supervised and faithfully performed, should prove



of immense benefit in days to come. In North Canterbury the Inspectors report: "In practically all the schools of the district these subjects (physical instruction and drill) are receiving attention, and it is gratifying to find an increasing number of teachers who supplement the ordinary club and dumb bell exercises by others, in which at frequent and regular intervals practice in deep breathing is given. The Cadet movement has now found permanent acceptance in this, as in other districts, and we are glad to note that Colonel Loveday has recorded his satisfaction with the efficiency of the various Corps. Between this efficiency and the discipline in the schools the connection is very intimate indeed." The Otago Inspectors say "The mark *good* for physical instruction is due to the high quality of the military drill of the larger schools, that is, to work done by the boys. With much of the work done by the girls we were unfavourably impressed. It is, we think, certain that the girls, especially those of the senior classes, are not receiving such training as is necessary for the harmonious development of their physical powers, and even when due attention is given to physical exercises, the effect is often neutralised by the bad postures the pupils are allowed to assume during the best of their school work." That I feel sure you will agree with. I do feel strongly that

in New Zealand we are paying too much attention to the physical development of the boys, and not enough to the physical development of the girls. And when I remember that these girls are to be the mothers of New Zealand, I say it is of even more importance that the physical condition of the girls should be attended to than should the condition of the boys. There is one thing more which is beginning to be done in New Zealand: "The attention of school authorities everywhere is being directed to the need there is that greater precautionary measures be taken in regard to the physical well-being of the children attending our schools. In New Zealand during the past few months, an examination has been made of the teeth of the scholars, revealing a deplorable condition of neglect in this matter." I remember reading a book by Washington Booker, who said something to this effect; that the first use of a toothbrush marked a step in the raising of himself morally. That beginning with the toothbrush seemed to mark a division of his life into two periods. I believe there is great need for teachers to impress upon children the necessity not only of cleanliness generally, but of special cleanliness in this direction. And it is gratifying to know that in our New Zealand schools teachers are beginning to give special emphasis to this important matter.

I find I have occupied more than my time, but I have not touched upon secondary schools, nor upon the Universities, but I will finish by saying one thing, and that is this: In New Zealand we look upon the children of the Colony as the first asset of the State, and in New Zealand we believe that the most important factor in that asset is the health of the children.

SIR JOHN COCKBURN,

IN THE CHAIR.

Mr. ALFRED MOSELY said he had come rather as one prepared to listen, than to offer any words of advice upon a subject on which he did not claim to be an expert. Mr. Deakin had referred to the motto of Australia, "Forward, Australia!" Would that it were the motto of this country! He realised that this country had fallen into a state of apathy; and because he had tried to arouse the people a little, he had been met with the usual conservatism, and had been told that we still lead the way and that it was for others to come to us rather than for us to go to other parts of the world to see what is going on. He had been very much interested in seeing how far other countries have learned from us, and then, to use an Americanism, had gone one better. He recalled the remark of the Chief Khama, of Bechu-



analand, "What care you take of your property, but how you throw away your people!" He thought that he had never, in so few words, heard so much said. It was everything to a nation to have the right class of child, instilled with the right sort of ideas, having received the right sort of education. Hygiene and Temperance were subjects that received a very large amount of attention in the United States. He found it difficult to get any statistics or reliable information as to what were the habits of the early settlers in New York State, but he was shown an interesting document which threw some light on the subject. They were the books of some old settlers in the village of Plesenville, situated thirty miles from New York, who, in those days, kept a combined farm and store, doing a little farming and bartering, because there was little money passing. Looking over those records, he was very much struck with the number of entries for rum; it seemed that nearly the whole of the bartering was in that article. One found entries of tea, coffee, and sugar, of wool, and various other things; but yet the great bulk of things which seemed to be taken in exchange were rum and molasses, the rum greatly preponderating. He did not know whether that was an exceptional instance, or whether it showed that in those days a large amount of rum was consumed by the inhabitants of New York

State. If that was the habit of the people in those days, it had undergone a very great change of late years. If one looked now at the well-collected statistics of the United States, he was impressed by this fact, that their drink bill is something like half that of the United Kingdom, and a further analysis shows that the great bulk of the liquor is consumed by the newer immigrants ; the true-born American is usually largely a man of temperance. You may go to a large hotel there and see nothing but water being consumed. Wine, spirits and beer, enter to a very small extent into the consumption of the average American. By "American," he meant the true-born American, he who had been born and bred in the country, who had been educated in the United States, and had thus had the enlightened education which the United States has become so proverbial for. When one sees there that the children of the gutter go from the Kindergarten to the University free, one realises how much they are doing to raise the standard of education and to offer an object-lesson to the world. Hygiene is taught in all the schools. The children are shown how, if they wish to lead happy and healthy lives, the study of Hygiene must be to them a consideration. He had been a student of the effects of education, rather than of the details of curricula, and he had been impressed with the manly appearance and womanly bearing of



the boys and girls of the schools, and by the way in which the individuality of the child was stimulated. The people themselves knew that a great deal of the future of a child depended on contact with the right sort of teacher, and, personally, if he were asked what he considered would be the most essential things in connection with the successful child, male or female, he would say, first, a good constitution ; secondly, a wise and good mother ; and lastly, and perhaps as important as either, the right sort of schoolmaster. If the child had those three advantages, it would be a freak of nature which would fail to respond. His part in connection with education had been rather that of trying to bring home to those responsible for the education of the rising generation of this country the fact that they must keep themselves abreast of the times, and see what is going on in other parts of the world. He thought the United States was the country which offered the greatest field for investigation of any which he had yet visited.

THE TEACHING OF HYGIENE AND  
TEMPERANCE IN THE CROWN COLONIES.

By JAMES CANTLIE, Esq., M.B., F.R.C.S.

MY LORD, LADIES, AND GENTLEMEN,—In every Crown Colony where the circumstances permit, the subject of Hygiene is now being taught in schools. It was first definitely taught systematically at Lagos, West Africa, under the wise initiation of Sir William MacGregor, who was then Governor of the Colony. And that model has been used throughout the Crown Colonies everywhere. On the receipt of a report of what was being done at Lagos, Mr. Chamberlain, who was then Colonial Minister, sent a circular letter, in October, 1903, to the various Colonies, and told them what was being done, and advised what should be done in regard to the teaching of Hygiene in their schools. He urged that the tropical scourges and diseases, from which the people of those Colonies suffered, should be first dealt with. It is very different from teaching Hygiene at home, because it is of no use telling people how to build houses of bricks and mortar when they live in houses of pampas and palm leaves; it is of no use discussing woollen, silken and cotton clothing with people who never wear any; it is of no use telling the evils which attend the drinking of milk to the Chinese, who never taste

milk. Therefore it was plain that the teaching in regard to the Crown Colonies had to be of a different stamp from that given at home. And therefore Mr. Chamberlain, acting upon the advice of Sir Patrick Manson, gave it as his opinion that it was in regard to the primary diseases of the Colony that instruction should be given. Malaria is the great trouble, as you know, in many of the Colonies, and as this makes a magnificent object-lesson nowadays, it was seized upon as a means of introducing Hygiene into schools throughout the Colonies. The Colonies on the West Coast—Sierra Leone, Lagos, Northern Nigeria—were the first to take up the work, and others have gradually followed their example. The subject of malaria lends itself very well to teaching of the kind. The children were first told that the mosquito was the means by which malaria was spread. And they were not only told, but they were shown the mosquito and its egg, how the egg developed into the larva, into the pupa, and finally into the perfect insect. They were taught by having bottles of water upon their tables in the various schools, and eggs were put in; and after a few days the pupils watched them, and saw them develop into worm-like bodies. Day by day they watched them until they saw a mosquito emerge fully fledged. That was an education in itself, quite independently of the disease. But it

was absolutely essential to do it in that way, because to tell a native that that wriggling worm-like body in the water-tank would ever develop into a mosquito would only make him laugh at you. And indeed the people of England, or, as Sir William MacGregor found, the people of Italy, would do the same. In Italy malaria is well known, and scientific men there have been talking about it for a long time, but Sir William MacGregor found it was impossible to make the Italian peasant believe that these wriggling bodies could ever become mosquitoes. Means and instruments were sent to the Colonies, and Sir William said these children should see for themselves how this egg became a larva, and the larva became a fully-fledged mosquito. And it did not stop there; the child was shown by lantern slides, and by actual demonstration and by diagrams, how this mosquito was able to implant into people the malarial plasmodium, the disease germ or parasite, by which malaria is spread. And from that as an educational basis we were able to spread a knowledge of other diseases and get in that way a deeper basis of education. So you see this was reversing the usual order of things obtaining in this country. Here we begin with anatomy, physiology, clothing, digestion, and from those pass on to other things. There it is no good beginning with that. This mosquito was something which came under



their immediate observation. They were able to follow and grasp the meaning of what they saw, and the Colonial Office did very wisely in breaking away from the stereotyped schemes and systems in this country, and in adopting a system which was in keeping with the place they were in, and in teaching the children what they were likely to take an interest in. There is now no British Colony of any importance in which Hygiene is not being taught. If we proceed, first of all, to Malta, we find the subject is compulsory in the schools there. There is one disease in Malta which should be taught to the Maltese. In Malta the textbooks have to be rendered into Maltese, and Italian, and English. It may be very simple to translate, but this question of translation is a very serious one. For instance, before you can teach in Sierra Leone, you have to translate the teaching into what the people can understand. In many places the teacher is the medical officer, because no one else in the Colony knows anything about Hygiene; he has to teach the future teachers of Hygiene. The people can only be taught by an interpreter standing by the side of the teacher and translating into Fiji, or Ga, or Yaruoba, or Mendi, or any of the thirty different languages which you find spoken in the different Crown Colonies. You want to print a textbook of the subject, but there is no written

language in some of the Colonies, and therefore you have to devise a language in which Hygiene and Temperance teaching can be conveyed to the people. In Malta the translations have been very successful, and the matter has been well followed up, and carried out systematically. Much the same applies to Cyprus, because at least two languages are spoken there, namely, Greek and Turkish. The matter of the teaching of Hygiene is in the hands of the chief medical officer there, and it is advancing. A definite course of instruction has been drawn up. In Ceylon the teaching has to be translated into Sinhalese and Tamil, and it must be carried out systematically. During the six months, October, 1902, to March, 1903, a series of popular scientific lectures, largely bearing on Hygiene, was given in the Ceylon Medical College, and they were subsequently published. In 1905 a three-weeks' course of lectures was delivered to twenty-nine teachers in grant-in-aid Sinhalese schools. They were freely illustrated by models, diagrams, and drawings. All the teachers obtained over 50 per cent. of marks at the examination, and twenty-seven were given certificates. The pupils are awarded prizes annually, which almost amount to scholarships. In the Straits Settlements, too, the teaching has to be translated into Malay and a number of alien languages which are spoken there. In the Straits Settlements Hygiene is a compulsory

subject, and in Hong Kong it is the same. Last year 1,800 boys and girls went up for examination in Hygiene, 1,500 of them in elementary Hygiene and 300 in the advanced course. In Queen's College alone, in the spring of 1905, 700 boys received instruction in Hygiene. No fewer than 606 presented themselves for examination, of whom 386, or 64 per cent., passed. In Fiji, Papua, and New Guinea you find that the missionaries are teaching the people Hygiene. It is impossible to carry out a systematic course with these people. It is difficult to get them to listen to you, it is difficult to speak the language which they understand. But by practical lessons, such as those sketched by the Colonial Office, it has been possible to instil the elements of Hygiene in various directions into these people.

In Mauritius we find a most ambitious programme, one in comparison with which the teaching which you find here is mere child's play. They go in for bacteriology, all about aërobic and anaërobic parasites, microbes, serum-therapy, Klebs-Löffler's bacillus, there is scarcely any branch of microscopy or bacteriology which is not involved in the lectures which have been poured upon the people of Mauritius. The intelligence of these people must be very high indeed. I am very glad it is, but it would not suit the people of Gambia. I will read to you a few rules which have been hung up in



the Gambia schools : "The following simple rules to be daily observed for the keeping of your health. (1) Always wash yourself on getting up in the morning—use plenty of soap. Keep your clothes clean, especially those next the skin. Keep your mouth and teeth clean, and thus avoid sore mouth and toothache ; keep your feet clean and free from jiggers. (2) See that your mosquito net is large enough to tuck under the bed, and that there are no holes in it. Shake the net in the morning, and roll it up in a bundle on top by itself. Always put the net down a little before dark and tuck it well in round the bed. Don't let it hang on the floor. If you have no mosquito net, you should get one. (3) Don't throw dirty water or filth near your well. Don't wash clothes near the well, as all fluid soaks through the ground and makes the water bad, and causes diarrhoea and pain in the stomach. If the compound is low, try to raise the ground with plenty of sand. If you do these things carefully, you will suffer less from fever and colds, and be healthier and stronger in every way." This was drawn up by two medical officers who evidently understood their business. There is no general plan of teaching which can be issued by the Government of this country that will suit every colony. Every colony has its own diseases, its own languages, and the matter must be dealt with by each colony individually ; no



general plan will serve for all the colonies of the Empire. In the circular which Mr. Chamberlain issued, he said the teaching must accord with the wants of the place; the scourges and diseases which afflict the people, these must be the key-note of the instruction, rather than any general plan. Text-books must be written for each colony, and that is being done for almost all. When we come to look at Africa, we find that in the Transvaal, which was under the Colonial Office, but is now, fortunately, standing by itself, Hygiene teaching was insisted upon, and also in Northern Nigeria and Southern Nigeria, but especially Northern; it was compulsory that it should be given systematically there. In British Central Africa the missionaries have done an enormous amount in regard to inducing habits of cleanliness amongst the people. A minister of the Free Church of Scotland has taken up the subject of Hygiene in the schools there. It is very important that missionaries should be taught Hygiene before they go out. In London there is a school for missionaries, in which they are taught first-aid knowledge in Surgery, Medicine, and Hygiene, and only during the last few days I have been able to get the authorities of Livingstone College to agree that the missionaries who are taught there shall be examined before they go in regard to proficiency in Hygiene, so that when

they go out they shall be able to give instruction in this matter wherever they go. Even in Somaliland, where the work has to be translated into Arabic, and where the Koran is the only textbook, the teaching of Hygiene has been begun. With regard to the East African Protectorate, where they are very backward, and where there is "sleeping sickness," they have some teaching on the subject of Hygiene. Sierra Leone is one of the best provided colonies we know of, and good work has been done along the lines of Dr. Prout's book entitled, "Lessons in Elementary Hygiene and Sanitation, with special reference to the Tropics." The work there is proceeding in a most satisfactory manner, inasmuch as at every school in the colony teachers are paid a grant of £20 when they send up a sufficient number of candidates for examination, and pupils are also awarded substantial money prizes, so as to encourage them. There is at Bo, in Sierra Leone, one of the most extraordinary schools in the world. It was started by Mr. Probyn. It is for the sons of chiefs, for the whole colony, and is non-sectarian: Mohammedans, Pagans and Christians are all educated together. Pupils live in their native dress, Hygiene is very systematically taught, and these young men go back to their homes, and when they become chiefs or other high officials in their district they are in a position to introduce modern

ideas of sanitation and the prophylactic measures whereby epidemic diseases may be dealt with. In the Gold Coast there is an efficient system, and at Lagos also. In 1902, ninety-eight presented themselves for examination, and 58 per cent. passed. In 1903, 276 entered the examination, and 170 passed, and at another date 285 were examined and 158 passed. The examinations in sanitation during the past four years have been a most satisfactory feature. In the West Indies every colony has made the teaching of Hygiene compulsory in the schools. Thus, the Colonial Office has done its duty. The question of Temperance in connection with the natives is a very different one. It is not the native who has to be taught Temperance, it is the European people, and I think legislation should be directed against the introduction of alcohol in any form into these various places. But the teaching of Temperance may be directed to other subjects than alcohol in our colonies, because there is the smoking of opium and sometimes of hashish; they have a number of such things. The members of the human race are not all angels, and if they have not drink, they very often have something else. So Temperance in these cases is not a question of prohibition of alcohol, but teaching the children the harm of various drugs which are used. And these should be insisted upon as

much as we insist upon abstinence from alcohol in England. What we in this country can do in regard to alcohol is to insist that alcohol shall not be allowed to be taken into any of the Crown colonies.

The CHAIRMAN: I have been asked to move this resolution, so as to give point to what has been said:—

“That this Conference has heard with great satisfaction that instruction in Hygiene and Temperance is systematically given in the elementary schools in the Colonies of the Empire, and that there is strong evidence of the value of this teaching. While cordially acknowledging what has already been accomplished in the United Kingdom by certain educational bodies, this Conference urges upon all local authorities the necessity of providing that the teaching of Hygiene and Temperance shall form an essential part of the curriculum of all children.”

Now, before the guillotine of time descends, there is a short period remaining for discussion. I think it will be in accordance with your wishes if I ask subsequent speakers to limit their remarks to ten minutes. And may I call first upon a gentleman who has come a long way, from New Zealand, and who, as I well recollect, is a leading citizen there, Mr. Mark Cohen.

Mr. MARK COHEN (New Zealand) said that he was there at the request of the Educational Board of Otago. Education in New Zealand was admin-



istered in a peculiar fashion. Several educational districts, numbering twelve, were paramount in the matter of education. Not even the Colonial Department can interfere with them in matters of administration. And thus it happened that all matters concerning primary education, and very largely matters of secondary education also, were administered by bodies largely foreign to the central one. So far as Temperance was concerned, a good deal of useful work was done in the primary schools, under the heading of public morality. Further than that they could not go, for the simple reason that the drink question was the most burning question in New Zealand at the present time. It was a political question of great intensity, and those who, like himself, had been members of an Education Board for some years, did not see their way yet to entrust the public school teacher with the teaching of that question, in the present inflamed state of public feeling. With regard to Hygiene in relation to public schools in particular, he thought they were going on right lines. The Boards themselves had sent their Chief Inspectors on missions of enquiry, and only last year and the year before, Mr. Greig, Chief Inspector of Schools for the Wandaloo district, made an extended visit through the United States and Canada, and published a series of articles on the results of his visit. The Education Board of Wandaloo primarily, with the Secondary Department secondarily, had acted upon the suggestions which had been offered. For instance, there was the central adjustable desk for writing, and a medical inspection of the teeth of the children had been undertaken, and in various other ways improvement had been brought about. So far as he could judge he thought the Education

Boards in New Zealand would advance this question of Hygiene; and he had read with very great pleasure the decision of the National Convention of Teachers in this country, declaring that no public school-room should, in future, have more than forty pupils under one class teacher. They had been striving for sixty as the minimum number, and had not reached that. It was not an uncommon thing to see eighty or ninety in charge of one teacher and a monitor, which was a disgraceful state of things. They had raised the status and they had raised the salary, and had got an acknowledgement, as an important factor in the matter, of a retiring allowance for the teacher in his old age. They trusted to see it raised to £120. Some of them thought that the most important public servant in the Colony was the public school teacher. He had the making of the future citizen, from whom, under their peculiar constitution, came the fathers and mothers of the country. And unless they made good citizens of them, the righteousness of the nation would not be exalted.

Mr. SYKES spoke from the point of view of the practical elementary school teacher. The elementary school teachers in this country were with them in this matter; but if the subject of Hygiene and Temperance was to be efficiently taught, it must be in the code, and the grant for the schools must be made to depend upon that teaching. But perhaps, the meeting did not realise what was being done in the elementary schools at present. He thought Canon MacMurray had gone to the root of the matter. He said, put the children in good buildings, first of all. Were they doing so in this country? He was recently in an elementary school under the shadow of one of the most beautiful

churches in the country, that was a disgrace to civilisation. The sanitary arrangements were simply execrable ; and how self-respecting parents could continue to send their children to a school like that, passed his comprehension. And how unfair it was to the teacher who was handicapped by such a school ! How unfair it was to those boys and girls to be compelled to pass the most impressionable years of their lives in a building which was not fit to harbour dumb cattle ! He was asked to visit the beautiful old church afterwards, and he refused. He had had quite enough when he had seen where the little boys and girls of that parish were housed. They wanted fresh air for the children. They should turn their attention to that iniquitous Article 19 of the Education Code, which said there should in no case be less than 80 cubic feet of air provided for each child in average attendance. But who wanted less than 80 cubic feet of air ? Who was clamouring for less ? With less than that they would be asphyxiated in less than a single day. A cabinet 4 ft. 4 ins. square contained this minimum supply of fresh air which was given to the child in the elementary school. That was the place to begin. Medical gentlemen of great influence should go to the Board of Education, and see that this iniquitous Article 19 was swept away. If they had a Medical Officer in conjunction with the Board of Education, and if he had power to order things to be done, that Article 19 would be swept away to-morrow. Then the elementary school child could have 8 square feet to stand upon. The secondary school child had got 16 square feet to stand upon. He supposed that the Board of Education reasoned—if it reasoned at all—that the children in elementary schools came from crowded



areas, and that they were used to a foetid atmosphere, and that they could thrive on it in school. He wished Canon MacMurray would go into some of the London schools. If he would come to Bradford he would show him some there, and he would ask him to say if those children came up to the fine definition of what these school boys and girls should be, when he said they were "a fine lot of little animals." Let them recognise that the young school child was in the main, a young animal. He was meant to breathe the pure air of Heaven, he was meant to live in the sunshine, he was meant to be well fed, well clothed. He implored the medical gentlemen present, to get these things first at headquarters. Let them see to it, first of all, that the children had proper physical conditions to live under; and then that the teachers were properly qualified. Did Canon MacMurray know that in this country the Board of Education laid down certain minimum conditions as qualifications for teachers' certificates, but that more than 50 per cent. of the teachers in elementary schools fell short of those conditions? He did not suppose that they, in New Zealand, knew anything about "supplementary" teachers in elementary schools; they were beautifully described by Mr. Birrell, when he said they were charming creatures, who had lightly drawn the breath of eighteen summers and who had been successfully vaccinated. And those were the only educational conditions, if you can call them that, for this army of 19,000 people at work in our elementary schools. This was the place to begin, if they wanted Hygiene and Temperance properly taught in the schools. They were simply playing with the fringe of the question in passing a resolution like that submitted, and he asked them to get to the root of the matter.

The Rev. J. BARR (Glasgow School Board) said that in Glasgow in regard to scientific Temperance teaching, their School Board had from the first taken a forward part. So early as 1876 they passed a resolution that the teaching of Temperance should have a place in all their schools, and they sent out a communication to that effect to the headmasters.

In the year 1888 a lectureship was instituted, and that, since 1890, had been paid out of the endowment left by Sir William Collins, who was a pioneer on the subject of Temperance teaching in the public day schools. Under this endowment a medical expert gave lectures in each of the 76 schools, specially to the boys and girls in the higher standards. But not content with that, two years ago they took means to have more scientific instruction in Temperance. They provided every teacher of the Board with two text-books. First, a Church of England text-book, giving the scriptural aspect of Temperance, which was used in connection with the Scripture lessons which were given there by the ordinary day school teacher. And in addition they gave to every teacher a text-book bearing more directly on scientific Temperance and Hygiene, such as Taylor's First Reader on Health and Temperance, and new sanitary primers. They also had a small reference library in every school, where the children could study this subject further for themselves. This arrangement was loyally carried out under the School Board of Glasgow, where they had over 2,000 teachers, and where they did not allow more than 60 children under any one teacher. He himself belonged to the strictest sect of teetotalers, but as a representative of the whole body of ratepayers, he felt that he had to put some restraint upon himself and could not ask the

teachers to institute anything like a total abstinence propaganda among the children. But they were free, as representing the ratepayers, to give Temperance lessons in connection with Scripture teaching, such as no one could successfully challenge them on. But in giving to the children the broad elementary ascertained facts as to the effects of alcohol on the human system, they laid in their public day schools the foundations on which the Churches, and the Total Abstinence Societies and Bands of Hope might well build.

Miss BOYCE SMITH had recently gone to the United States specially to see what was being done in regard to the physical education of women and girls. In the first place, gymnastic mistresses in connection with every school were asked to fill up a form for every girl as she entered the school, giving the girl's previous history, her training, her home conditions, what illnesses she had undergone, her special physical characteristics, and so forth. Doctors co-operated in the matter, and she found that medical men in charge of the schools were much more numerous than in even the leading schools in England. At the Ladies' College, many medical men advised them, and were consulted with regard to the health of the girls. They had a Committee of medical men, who dealt with the treatment of epidemics, &c., in the Ladies' College. But in America they went further. They had a medical man in connection with most of the leading schools, who was used as consulting physician for the treatment of small cases of ill-health which happened in connection with the girls at the schools in question. The result of all that was that the anthropometric cards, the work of the gymnastic mistresses, and the work of the medical men was



so excellent, that the health of the women and girls in the United States was strikingly and increasingly good. She was asked more times during the months she had been in America, "What do you think of the health of our women and girls?" than any other question. She could only reply with unstinted admiration of the methods by which the women and girls of the country were becoming beautifully developed physically; they were strong, healthy, and vigorous. This had an enormous effect on the health of the nation. In talking about Temperance they should not use the word as indicating Temperance in the matter of alcohol only. They should lay as much stress on Temperance in regard to tea-drinking and other things of the kind. One of the chief mistakes she saw made in the United States was the attempt to teach Physiology to quite small children. They should teach them Hygiene, and they could do that successfully; but she heard absurd mistakes from the attempt to teach Physiology to children of the Kindergarten age or just above it. She urged that the religious teaching in schools should not be mixed up with the teaching of Physiology and Hygiene. We in England had suffered quite enough from religious controversies!

Mr. PERCEVAL SHARPE (Secretary for Education, St. Helen's) said that on the advisability of introducing these two subjects into the school curriculum, there could be no question. Some doubt had been cast on the willingness of the elementary teachers to undertake the work. He had been an elementary school teacher himself, and his work now lay among them; and he was certain that, under practicable conditions the work would be done, and done well. He thought there was great danger of over-estimating the value of sending a

number of children for examinations in Hygiene, because the real lesson to be learned from Hygiene was not certain facts, but habits of self-repression and discipline. Indeed, he would go so far as to say that Temperance teaching should be based largely upon sentiment. It was not unknown for members of the medical profession, who knew all that there was to be known about the effects of alcohol on the human body, to err in this respect; there were erring brethren even in that profession. Therefore it was not sufficient to give the child certain facts, but they must train him in habits of self-repression and discipline. But was the scheme practicable? His later experience had shown him that there were many schools which, on account of their unhygienic condition, and on account of the inherited defects of the children, found it most difficult to work through even a moderate curriculum. To add to such a curriculum in such schools was worse than useless. If this subject was worth doing, it was worth doing well, and it *was* worth doing. They must not sacrifice thoroughness; the curriculum should be done thoroughly. He would like to make a suggestion to the Board of Hygiene and Temperance, that when they next approached the Board of Education they would try to secure that the liberty of the teacher to frame his curriculum should be a real liberty, that he should not be harassed by the Inspector. This was a real difficulty. He was exhorting the teachers under his authority to have their own individuality in this matter. They must not be, to use a vulgar expression, "chivied" into teaching things which their individuality revolted against.

Sir WILLIAM COLLINS, M.P., said: Nothing could be more satisfactory to those who belonged

to the Legislature than the attention which the health of nations, as well as the wealth of nations, was receiving at the hands of public bodies. He noticed in the resolution which was the subject of consideration, that they cordially congratulated the Colonies on their systematic teaching in Hygiene and Temperance. The later paragraph of the resolution suggested that a less satisfactory state of things obtained in this country. As one who had presided over the London County Council, and also over its Education Committee, he might say that no particular fault had been found with that body in its municipal or educational affairs as being in any way unfriendly to the systematic teaching of Hygiene and Temperance. He spoke of the past, not of the future, and he hoped the future would have more developments even of a more systematic kind of teaching, of both Hygiene and Temperance. But he wished to utter a word of caution. Child life had been brought under public observation, and the opportunity had been afforded for enthusiasts of various kinds to use organised efforts to import into school life other things than those of a purely educational character. It behoved public administrators to be on their guard against the misuse of the great opportunities of organisation which their public education afforded, and to see that the primary object was not lost sight of, and that well-meaning benevolent despots were not let loose upon the schools in an indiscriminate, unthoughtful, or unsystematic way. He was one of a deputation of three which waited upon Mr. Birrell, when he was President of the Board of Education, to urge upon him the incorporation of moral instruction in the Code, at any rate as an optional subject, and he was glad they achieved that very important reform. He



was not sure whether, in the case of moral instruction and the teaching of Hygiene and Temperance, they should not aim at a permeation rather than the mere addition of a particular subject. He desired to permeate the whole Code with such instruction in Hygiene and Temperance as could not fail to react favourably upon the hundreds of thousands of children who now came under the purview of the State. In regard to physical degeneration and the feeding of school children, and the teaching of Hygiene and Temperance, he welcomed the general movement in the direction of giving greater importance to those subjects; and if in any humble degree, either as Member of the House of Commons, or in connection with local work, he could forward the objects for which this meeting had been convened, it would be a great privilege to him to attempt to do so.

Miss ALICE RAVENHILL thought it was of greater importance to impress on the public mind that it was rather a preparation of teachers to give this teaching and to diffuse this atmosphere, which they desired, than the actual, direct, theoretical instruction of young children. It was the formation of habit through the work of well-instructed teachers at which they must aim. It was the carrying on of the Nature-study course, in which man fits into his right place in the scheme of Nature, to which they must trust for the training of the older children. It was very important when they were passing this resolution, to bear in mind that though they advocated that Hygiene and Temperance should form an essential part of the teaching, they did not attempt to define the exact way in which that teaching should be given. They did not want to promulgate one syllabus to which every school was



to conform; this would be fatal to their object. The teachers should incorporate it with all the subjects, and then they would get that steady habit to the formation of which they must look. Children wanted reasons. They could not expect intelligent action unless they had a ground-work of reason behind it. But that came in the last year or so of school life, when the brain was developed. The little child did not reason; it accepted. Nothing had yet been said about secondary schools and yet there was more than actual drink which came under the heading of Temperance. What about the expenditure of pocket money on sweets, which laid the foundation of what she could only call intemperance, later on? That was self-indulgence and the inability to resist temptation. Then again, if they did not train the children in the elementary schools to care for the health of those less favourably situated than themselves, how could they expect a wise expenditure of public funds for the provision of such buildings for public schools as would be in themselves object lessons? Therefore, she asked that this subject should not be too much narrowed to theoretical teaching. She recognised that it was to permeate the life. Let them keep it from the ban of examination. The test of education was character and conduct at 35, and not examination after three months teaching.

Mrs. RUSHTON (Organising Secretary, Women's National Health Association of Ireland) gave an account of what had been done on this question of Hygiene and Temperance in the Association which had been started there. They were starting this question through the women. They had started the Women's National Health Association of Ireland to make every woman understand the laws of

Hygiene, and to get the matter thoroughly into their atmosphere. This was sorely needed in Ireland, which was terribly poor and behind the times. It had been very much neglected. A little while ago she asked a doctor in Dublin, who was very interested in their new movement, "How is it the children cannot be forced into the schools?" He said "I don't care to say it out aloud, but leave them to run about the streets; it is better for them, the state of the schools is so terrible." She hoped this question of fighting for good schools would come up in Parliament. Everybody ought to help them to get money to remedy the dreadful state of affairs in Ireland. One gentleman had alluded to the missionaries. It was interesting that very important courses of Hygiene were held at Maynooth. This was very important and doctors admitted it, because when those priests and clergy came to their parishes they would be very good referees. Another very important point was that in Dublin, right in the heart of the City, there was a big Temperance Hall, where the workmen of the country came. There was to be a bazaar there next month, and in connection with that bazaar there were to be conferences each day. The first day it was Irish manufacture, and that was to be discussed by everybody. On the second day the question of forestry was to come up, to get people interested in it, as a very important and very healthy matter. But coming back to the point of the women taking up this question, she thought she had been told of someone who brought her child to a great educationalist and wanted his opinion about reforming the child's character. He asked how old the child was and the reply was  $2\frac{1}{2}$  years. He said "You have come  $2\frac{1}{2}$  years too late." Some said that at 9 years

old all this teaching should begin. They wanted to get mothers to understand it, so that they could begin it themselves.

Lady BIDDULPH had been struck by the delicious freshness of the air which had come from our Colonies. It seemed that they refused no means, however simple, for instruction in subjects which they believed to be for the greatest improvement of humanity. It was not great and learned teaching which was wanted but plain, simple instruction in the elementary facts of the laws of health.

The resolution was then put and carried.

**Afternoon Session.**

**The Right Hon. Sir JOHN E. GORST, K. G.**

IN THE CHAIR.

---

The CHAIRMAN: Ladies and Gentlemen,—The first business upon the agenda paper is put down as the Chairman's address. But as we are met to hear most valuable papers from foreign countries, and from some of our own authorities, upon the subject of Hygiene, I can assure you that the Chairman's address will be a very brief one. I do not think I can do anything more useful to those who are bent on the extension of the knowledge and practice of Hygiene among our population, than to point out that the two great obstacles to the progress of Hygiene in this, and most other countries, are, firstly, ignorance, and secondly, selfishness. I do not mean ignorance of the scientific facts about health, because they are generally known in our day, but ignorance of their practical application to the ordinary incidents of life. How many thousands of people are, this very day, travelling about the country in railway carriages, sealed against the fresh air! How many millions of people will go to bed to-night and sleep in the

vitiating atmosphere of their own breath, and that because they have been taught that night air is dangerous! How many hundreds and hundreds of people take their pleasure in theatres and ballrooms in which the air is not fit for human beings to breathe, forgetting that the body requires to be fed with oxygen, just as much as with music, and with champagne! The object of this meeting is to spread practical knowledge of these things, and to endeavour to persuade the people to apply it to actual practical purposes. And the second great obstacle to reform in Hygiene is, as I have said, the selfishness of the propertied classes, who practically command the Legislature and the administration of this country. I do not know anything more remarkable than the extent which Boards of Guardians and educational authorities and municipalities and city councils come to the opinion that it is far better to let the child population of the country starve than to run the risk of having to pay for their food out of the rates. The rates, it is true, are a burden upon the propertied classes; it is they who, in the final stage, have to pay the rates; but it is extraordinary how the economic heresy has been spread about in this country, and particularly among the working classes of this country, that it is the occupier who pays the rate, and not the owner. I have known extremely Radical, Social, Democratic



societies petition Parliament that necessary sums for social and other purposes should be paid out of the taxes, instead of out of the rates, out of the taxes of which they do pay more than their fair share, instead of out of the rates, of which they pay nothing at all. A gentleman there says "Oh, oh," but I appeal to the principles of political economy. Rates are paid by the hand of the occupier, but they are paid out of the rent which would otherwise be paid to the owner. The man who takes a house does not care whom he pays. He pays, perhaps £100 a year for a house, but he does not care whether he pays it in rates or rent. If he has to pay £20 in rates, he will pay £20 less in rent. If there were no rates at all, the landlord would be able to exact £100 for that house. There is one sense in which it is true that rates do raise the rents of houses, that is, that in a neighbourhood where houses are highly rented, there is less inducement for the builder to expend his capital in the construction of houses, because he will get less profit than if he built them in a low rented district. However, that is the idea, that the rich pay the rates on property, else why the extraordinary zeal of the majority of members of the House of Commons and the whole of the House of Lords in suppressing as much as possible any payment out of the rates? And the poor, in many places are induced to believe it is they that

pay rates, and therefore they have a great interest in keeping them down. But is it wise for either rich or poor to keep down rates and prevent the expenditure of money upon public purposes? If you look at a neighbouring nation of which we are sometimes extremely jealous, Germany, you will find that in the municipal towns in Germany the rich have a very much greater voice in the amount of local expenditure which shall take place than they have in this country. We have here the Democratic Franchise, and in the German municipalities, one-third of the Town Council is represented by the rich, one-third by the medium portion and one-third only by the democracy. And yet in those towns where the rich people have so great a command over the local finances, more money is spent on hospitals, on schools, and even upon theatres and bands of music than is spent in this country. And it is spent because the Germans are wise enough to know that all money which is expended in improving the health of the people and of the town adds to the value of the property which the property-owners hold. We seem to think here that every penny which is spent in the general improvement, in making the town more healthy and convenient for the residence of its inhabitants, is money thrown away. It is not. It is money invested, and invested in the wisest possible manner. And I

have no doubt that if our expenditure upon Hygiene, upon hospitals, and upon schools, and upon convalescent homes for the suppression of disease were very much increased here, it would very much increase the value of the property which the property-owners hold.

I am afraid that the interruption which was made has caused me to speak longer than I had intended. I will now call for the first paper, by Dr. Dinet, of Paris.

#### THE TEACHING OF HYGIENE IN SCHOOLS IN FRANCE.

By Dr. ROBERT DINET, Paris.

Read by Dr. DAVID SOMERVILLE, London.

The organisation of the teaching of Hygiene in French schools dates from 1897. Prior to that time a certain amount of instruction in Hygiene had been given by schoolmasters in connection with common subjects, more especially the natural sciences. But in that year the Council of Public Instruction issued definite programmes of Hygiene for the whole country, which remain to-day. In the primary schools a few elementary notions concerning the human body and a few hygienic counsels related thereto are included in lessons on common objects. These ideas are imparted in quite a simple manner

by the female teachers, and are matters more of education than of instruction, intended to inculcate cleanliness and good behaviour. The primary schools are divided into three classes, viz., elementary, intermediate, and upper. The programme of the elementary indicates that children must be inspected on their arrival and that perfect cleanliness must be insisted on. The teachers give advice to the children collectively, or individually, on the subjects of food, clothing, and cleanliness of bodies and clothes. The same programme is used in the intermediate classes. In the upper classes a few practical suggestions on Hygiene are added to the teaching in the courses of natural science, and refer to such questions as drinking water and the various beverages, the dangers of tobacco-smoking, and of spirit-drinking. On the sea-coast the Hygiene of fishermen is discussed. It is only in the third year of the upper primary schools that a distinct course of teaching in Hygiene exists, comprising twelve lectures of one hour each, delivered during the last quarter of the scholastic year; four hours are also devoted to the propaganda of Temperance: The following are the details of this programme:—

*Potable waters.*—River, spring, and well water; contamination of potable waters.

*Purification of potable waters.*—Filtration, boiling, &c.

*The air.*—Quantity of air necessary in houses.

*Danger of confined air.*—Renewal of the air; ventilation; vitiation of the air by dust and gases; marshes.

*Foods.*—Adulteration of foods; unwholesome meats.

*Infectious bacteria.*—Parasites; putrid meat.

*Beverages.*—Temperance propaganda.

*Contagious diseases.*—Pasteur's experiments; anthrax.

*Tuberculosis.*—Rapid review of the principal contagions in man; transmission of infection by air, water, respiratory and alimentary tracts; small-pox, ringworm, itch, &c.; vaccination, revaccination.

*Preventive measures.*—Disinfection; cleanliness of the body; conditions of health in the house; the healthy home, and the unhealthy home.

*Latrines.*—Diseases caused by human excrement; typhoid fever, cholera, &c.

*Sanitary police regulations.*

*Maladies transmitted from the lower animals to man.*—Hydrophobia, glanders, anthrax, tuberculosis.

The above programme is used in common in the three sections of schools (agricultural, industrial, and commercial).

In the higher girls' schools nothing is said about the infection of animals; and the chapter on contagious diseases is less developed. The following



chapters are added : Clothing ; properties of various stuffs ; shape of clothing from the Hygienic point of view ; danger arising from too tight clothing ; stays ; footgear ; health of infants ; insufficient and bad food ; cleanliness of the body ; baths, washing, cosmetics and their dangers ; walking, running, gymnastics.

In girls' schools it is necessary to insist on the Hygiene of food and of infancy. The study of alimentary Hygiene may be usefully joined to instruction on household matters, particularly to the culinary course ; it would be wrong to separate the theoretical instruction from its application, if it is desired that the former should bear fruit. The girl is taught at one and the same time the composition of foods and their nutritive values, their prices and their economic returns, their rational preparations, and the composition of bills of fare, in respect of quality and quantity, as determined by age, occupation, &c.

The care to be given to infants is unquestionably a part of Hygiene that should be strictly insisted upon. In spite of the progress of women, they will be for all time entrusted with the bringing up of future generations, and the importance which they ought to attach to the physical and moral development of children is so great from the point of view of the future of the individual, of society,

and of the race, that one cannot but feel astonished with Herbert Spencer at the ignorance displayed by mothers in respect of this subject in all classes of society. This instruction is however quite insufficient, by reason of lack of technical instruction of the teachers, defective methods in teaching, and poverty of the syllabus.

Teachers, especially the older ones, have a poor knowledge of Hygienic matters, and any zeal that they may display cannot form a substitute for the scientific information they do not possess, when they attempt to teach Hygiene. Their instruction in this subject ought to be largely improved. This duty of teaching Hygiene however, might well be left in the hands of medical men in the upper classes of primary schools, and in the higher primary schools.

Apart from the teaching of Hygiene in connection with common objects, there should be systematic and distinct courses on the subject illustrated by diagrams and completed by special books. In primary schools, special instruction in Hygiene ought to be insisted upon in all classes, suitable to the age and intelligence of the children. In the higher primary schools, the twelve hours devoted to Hygienic teaching in the third year are quite insufficient. This instruction should be introduced into each class, and the time allotted in-

creased. The Hygiene of particular professions and trades should be taught; and the special requirements of the scholars in agricultural, commercial, and industrial districts, should ever be kept in mind. Finally, this instruction should be sanctioned by its inclusion in the final examinations.

In the Lycées and Colleges under Government, Hygiene is only taught in the classes of philosophy, and even there only twelve lectures of one hour each are devoted to it.

The programme is the same as that in the upper primary schools, and the lecture is usually given by the professor of natural sciences.

In colleges for girls there is no distinct instruction in the subject of Hygiene, but reference is occasionally made to matters Hygienic in connection with the lectures on Domestic Economy and Animal Physiology, in the third, fourth and fifth years. An hour a week during the whole scholastic year should be devoted to Hygiene, and this instruction should be followed by an examination at the close of the year.

As the professors of natural sciences are not always sufficiently convinced of the utility of Hygiene, nor properly instructed in it, it would be better to commit the teaching of the subject, especially in the upper classes, to competent medical men.

Thorough Hygienic instruction is necessary for the school teachers, for they will be called upon later to pass it on to their pupils. Such instruction at present is quite inefficient.

In the normal primary schools there is no instruction in Hygiene during the first two years; in the third year only twenty hours are devoted to the subject. The programme is the same as that for the higher primary schools, with something additional relating to the Hygiene of infants. In this programme, however, nothing concerning the physical, intellectual and moral Hygiene of the child, and nothing concerning the personal Hygiene of the teacher is to be found. It is absolutely indispensable to thoroughly organise this teaching of Hygiene to teachers. They must be instructed in the special Hygiene of children, in the Hygiene of the school premises, in the diseases of children, and in the Hygiene of education, and the instruction should be from the physical, intellectual and moral point of view.

In conclusion, it must be understood that the official teaching of Hygiene described in French schools is insufficient, owing to the incompetence of the teachers, bad methods of teaching, and poverty of the programme.

It is indispensable that thorough instruction shall be given to the teacher, and wherever possible, to

intrust this instruction to medical men. The number of hours devoted to Hygiene ought to be largely increased.

As to the Syllabus, its contents should be inspired by the words of Professor Layet at the Congress in Vienna in 1887: "In a general way the teaching of Hygiene ought to be suited, on the one hand, to the temperament and intelligence of the audience to which it is addressed; and on the other hand, to the conditions of the social surroundings, private or professional, in which those interested are placed or hope to be placed."

### THE TEACHING OF HYGIENE IN SCHOOLS AND COLLEGES.

By Dr. FOVEAU DE COURMELLES, Paris.

*Laureate of the Academy of Medicine; Vice-President of the French Society of Hygiene, and of the Association of Teachers; President of the Section of School Buildings of the First and Second International Congresses on Sanitation and Health of the Dwelling. Paris, 1904, and Geneva, 1906, &c.*

TRANSLATED AND READ

By Dr. DAVID SOMMERVILLE.

*Lecturer in Public Health, King's College, London; Lecturer in Physiology and Hygiene, Department of Agriculture and Technical Instruction, Ireland, &c.*

The teaching of Hygiene at the present moment is, and cannot be other than defective. This is because school buildings and colleges are for the most part themselves opposed to the laws of Hygiene. The



most recent establishments are no exception to this rule. It is not by dry lessons that Hygiene can be taught, but by living examples of it.

To say to a child in an unhealthy or an unhygienic school, "It is not like this that an establishment should be; it should be so and so, in order to be healthy and in accordance with our physiological needs," seems to the writer an abstraction incomprehensible to the child.

One should first of all have the maximum standard of Hygiene in schools and colleges, in order to be able to say to the children "We conform to vital laws, because such and such conditions in which we now are, suit our organisms."

When a child has been taught through his memory, and not through his intelligence, that the air suitable for breathing should contain 20·8 per cent. of oxygen, 79·2 per cent of nitrogen, and no carbonic acid, does one think such abstract ideas will have taught him Hygiene? Not one whit. But if, on the contrary, in teaching such a lesson in chemistry, he is shown a bird or an animal placed in an irrespirable atmosphere, and suffocating and dying there, he will have understood the vital *rôle* of oxygen. One ought, therefore, to explain to him that without going to these extremes, man, when placed in a vitiated atmosphere, loses slowly but surely his vitality—his power of existence, and of

resistance to disease. One ought also to be able to make him compare his healthy school (when it is so), with the still too numerous unhealthy centres which have been so long in existence.

All this can serve as a pretext for the teaching of Hygiene and of ethics, which is nothing more than the Hygiene of the passions, which must be kept thoroughly under control. Even history affords matter for instruction in these things. How many epidemics have followed on wars, especially in the past! How easy it is for the professor to compare the absence of Hygiene which favoured the growth of these scourges, with their disappearance from the earth, as nations became more and more Hygienic.

But it cannot be too often repeated that the teaching of Hygiene must be rational, in order to produce its best fruits. It is necessary that the examples seen by the child about him should be in accordance with his master's teaching. How can one expect a child to believe in Hygiene when, for example, with rare exceptions he sees only the present absurd school furniture — uniform desks for children of different heights, at an age when they are growing and when their spinal columns are easily bent, whilst the light is not from the left only, and orientation not south; whilst he cannot see in school, and has to twist himself, if he is studious, to hear and learn; how can one admit that in such cases even the best lessons in Hygiene can be profitable?

Medical inspectors, notably in the schools of Brussels, where school Hygiene has been for a long time to the front, make a special point of looking after the health of the child. According to the development of his sense faculties—hearing, sight, &c.—would it not be advisable to place him in a particular position, and even to explain to him the reason for such action? which would form an excellent and practical lesson in Hygiene.

There are already a large number of good school desks in existence, such as the desks of Dr. Roland of Toulouse, of Feret of Paris, and of Mouchain of Geneva, adjustable to suit the different heights of the children. The *optostat integral* of Dr. Roland, moreover, maintains the head erect so as to prevent myopia. If the child is obliged to stoop, so that he becomes short-sighted and hump-backed, which is actually his fate, how will he understand the advantage of sitting up straight and of developing freely?

How many lessons could take place in the open air, and standing? It is alleged that there are many material impossibilities in the way. Money for example! But why not replace little by little the old and worn-out furniture by new and rational? Drawing and object lessons could be taught out of doors beside the objects themselves, and from these a Hygienic lesson could issue.

The heating in winter could be used at the same



time for the teaching of physics and Hygiene. It does not appear to the writer that this is ever done, although it is easy and practical.

The physiological information which mock modesty prevents us supplying naturally, particularly in the case of girls, becomes the cause of future constipation, organic derangement, and grave pathological conditions. In the case of boys of 18 and under, would it not be advisable to initiate them into the numerous and terrible dangers which will surround them when no longer under the control of their parents? In this matter, it may be asked, is general teaching necessary? The writer rather believes in the master seizing the opportunity, *e.g.*, when out walking, of individually, and in a friendly way, discussing with boys in whom he has noticed the appearance of certain appetites, the possible dangers of the future. For the girl, a baby or a doll will be used to teach the principles of future infant care.

In short, the writer does not believe in the didactic teaching of Hygiene, but in constantly utilising practical opportunity, as it arises.

In sports, what is to prevent the master from explaining the physiological uses of such and such movements, and their value in the development of such and such organs? And if the child has a weak part in his body, he will be taught to correct the defect, and to strengthen the weak part by that par-

ticular sport which is more suitable than any other. Knowing the "why" and the "wherefore" of these things, the child will realise better what he ought to do. *Apropos* of sports, the writer agrees with Herbert Spencer that one must not abuse them, which, unfortunately, is the tendency of to-day. It is not intended to produce acrobats by such and such exercises, but to develop and increase the strength of the constitution, to produce in the individual energy, endurance, initiative, and harmonious correlation of body and mind by means of the best Hygiene.

In the open air whilst dancing, fencing, &c., the teacher will explain that each movement has its particular use, and few words will suffice. These will be constantly repeated, so that for the teacher it will naturally become a habit to complete his demonstrations with brief notes on Hygiene; and this will benefit himself in that it will prevent him exaggerating his art. How often over-straining of a single organ has rendered some poor creatures fragile, weak, and of scant endurance! How often military doctors have been able to notice in recruits weaknesses in distinguished sportsmen, and strength in puny-looking individuals, able to endure fatigue and heat! All this must be taught to the child: such is Hygiene. And if he shows a taste for a particular sport it will be necessary to make him understand



that he must practise at least a little at other sports in order to compensate and to prevent abuse of his favourite one.

There can be no doubt that the teaching of Hygiene thus carried out in morsels, without fatigue, and without effort to anyone, will be most profitable. It is now known that pleasure and duty can be reconciled. We have only to inspire a love for duty ; and this *rôle* lies with the teachers.

After sport, cleanliness, which will free the body from perspiration and dirt, will become a pleasure if one can make its importance valued, not by a course of lectures on Hygiene, but by a few suggestive words and examples.

These brief suggestions can be applied to colleges equally with schools.

One doses, speaks, and explains according to the age and environment of the child. In case of a poor child whose Hygienic surroundings are unfavourable, one would accentuate these easy lessons, in order that he might be wiser and cleaner—in short, more Hygienic. How many well brought up children have been able to improve little by little, even without words, merely by the example of their surroundings and atmosphere! One generally thinks only of the education of the children by their parents, not sufficiently of the possible effect of the influence of the children and the school on the parents.

With regard to anti-alcoholism the child may be able to carry to his home useful instruction. Teaching by pictures and by examples in the streets will in this subject be the simplest method. It is necessary that the teachers should be temperate, some say abstainers. It is difficult to explain to the young mind what the adult does not easily grasp nor remember, concerning the difference between Temperance and abstinence—between use and abuse. If the teachers are total abstainers their example will carry more weight. But cannot one be temperate in the fullest sense of the term without (unless one is ill) renouncing the wine with which one slightly colours one's water at meals? This is one of the most important problems for the future of our race, which alcohol predisposes to tuberculosis, insanity and deterioration in all forms. Here education will play a more important part than instruction. Example is so contagious with the multitude, and particularly with children. We do not require any longer to utilise slaves, drunken helots, in order to inspire the child with a horror of drunkenness. Everywhere alas! about him, often at home, he sees it! If he repeat at home the lessons of his school on the subject, it will be to condemn his father, his elder brother, and possibly his mother. They will deride him, and contaminate him, as a drunkard does not care to drink alone, he eagerly proselytises. How

many obstacles are there to conquer in this necessary campaign against alcoholism! Is the child not often made to drink out of "papa's glass," which teaches him little by little the taste and craving for alcohol? The difficulties will be greater here than in all other departments of Hygiene, and yet how important, how indispensable, the teaching of anti-alcoholism! But to battle with vice, and to rescue the people from fatal and pernicious habits, requires the greatest tact, the absence of which will incur the penalty of opposition on the part of those in whom we are interested, and frequently of failure.

It does not seem to the writer that this aspect of the question has been considered, and up till now we have rather preached to converts, temperate individuals, and abstainers, than tried to reach the real alcoholics, the inveterate drinkers, the customers of bars and public-houses.

In conclusion, in these brief generalities, the writer has only desired to express a few ideas, especially to condemn the didactic teaching of Hygiene in schools and colleges. The cramming of the brain by memory is absolutely useless. Education and instruction by means of all the senses are highly preferable. In respect of Hygiene it is not in sentences, however concise, that one can sum it up and inculcate it. This teaching ought to be in operation at all times, and *apropos* of everything that one sees, hears, and touches.

It is the teachers who first of all should be instructed in this way, or rather have their attention drawn to, and their minds directed in, this new way, which after all is very easy to follow.

Let the picture in the school complete the lesson, but the picture must first be pointed out and explained ; if not, the child will become accustomed to merely see it, without deriving the least profit from it. Give the children as rewards, miniature pictures on these questions, stories with few or no words, such as those of Epinal. One picture will praise the advantages of cleanliness over dirt, by the apposition of the subjects—tangible and amusing examples ; another will praise sobriety as contrasted with drunkenness, and so forth, and so forth.

Thus, it is conceived, without fatigue either to teachers or pupils, can be effected in schools and colleges, the profitable, salutary, and indispensable teaching of Hygiene.

Dr. SOMERVILLE, in conclusion, said : I would like to add one word on my own account. Both these gentlemen, when I saw them a fortnight ago at their respective homes in Paris, emphasised the fact that the great difficulty in Paris is the obtaining of the proper type of teacher, and I think that is one of the important matters which we in England will have to meet. Some authorities hold that the only individual suitable for this work is the practical

scientific man who is so saturated with the subject that it is no fatigue to communicate to others that in which he, practically, day by day lives.

THE TEACHING OF HYGIENE  
AND TEMPERANCE IN SCANDINAVIA.

By Dr. HELENIUS-SEPPÄLÄ.

MR. PRESIDENT, LADIES AND GENTLEMEN,—I was somewhat astonished to receive your invitation to come here in order to tell something about the Temperance instruction in the Scandinavian countries. I thought, what can a pupil teach his schoolmaster, and certainly we must all gratefully confess, that the English people has been the great schoolmaster of all the other European countries in the territory of Temperance work among the growing generations. But then I thought, as the farmer sometimes has small experimental fields to try how well the different plants are getting on under special conditions, so the small countries are experimental fields for the large countries in carrying out the great reform ideas, and therefore you may be interested to hear, how the temperance work, especially among the children, is going on in the northern countries.

Of all European countries *Finland* is nearest to the final aim of Temperance work. There before the



year 1866 the yearly consumption of distilled drinks was in Finland about 20 litres per inhabitant; now it is a little over 2 litres. In the country towns we have, practically speaking, full prohibition. And of the 200 men and women, who were recently elected to the new parliament of Finland, at least 178, or 89 per cent. are supporters of State prohibition, including the manufacture, sale and import of all intoxicating liquors, except for medical and technical purposes. Very soon we thus hope to get the first complete prohibitory law in the world, including also the prohibition of import of alcoholic beverages from other countries; and this not by command of the government, but by the will of the people itself. Public opinion is ripe for prohibition. I give only a few examples of it. All the more important political parties in Finland have State prohibition on their platforms. All unions of working men have prohibited the sale of alcoholic drinks in their localities. Several years ago the students at our University prohibited the sale of intoxicating liquors in the "House of Students" in Helsingfors, where the academical meetings and festivals take place.

It is generally known, that it is also in *Norway* only a question of time, when they will have State prohibition. And in *Sweden* the "House of Parliament" recently voted for State prohibition,

although this decision was of course a horror for their "House of Lords." In *Denmark* public opinion is demanding more and more earnestly the introduction of local option. Thus you see, we are going forward very fast in our northern countries.

What has been the most powerful factor in our movement? I do not hesitate to say, that when we felt weary or seemed to have stagnation in our Temperance work generally we were helped by the work among children. We must of course begin with the children, if we would win the people of the future for our ideas. But it is also necessary, that we reach the present generation—the law-givers, the teachers, the parents—and the surest way is through the children. When the cause is explained in the right way, the parents have nothing against it that their children should obtain knowledge of the real influence of alcohol, and then, by and by, without they themselves taking notice of it, our ideas enter into the families, and from the families into public life, into the parliaments. The way into the hearts of adult people is through the children. That is our historical experience also in Finland. Already over twenty years ago several petitions for State prohibition were presented to our Parliament. But there was no strong public opinion supporting them. About ten

years ago the leaders of Temperance work were almost desperate; we stood nearly still in the Temperance propaganda. At that time my wife came over to England in order to study the work of the Band of Hope Union. As a result of this journey we began a new life in our work among the children. But it was not that only, in a short time we could observe a new life also in our general Temperance work. Thus we are indebted to the Band of Hope Union of England for being so near State prohibition, as we are. Of course many other things have assisted to this result, but in rousing the *first* interest for the Temperance question we cannot over-estimate the importance of Band of Hope work, in one or other form.

How is then the work among children organised in Finland? I have not many facts to tell about, but we now have so much experience, that we begin to agree on the best plan for the work. I think it is most practical first to make a difference between common schools and higher schools.

In regard to the *common school* we had at first Band of Hope work only, outside the school. But very soon it was demanded by public opinion, that the effects of alcohol should be a subject of regular instruction in common schools. In the year 1898 our Board of Education ordered that the Inspectors of common schools might ask the teachers to

give Temperance instruction in connection with natural history, especially with anatomy of human body. Some years later the Board of Education wanted, that a special text-book of natural history describing the effects of alcohol should be compiled for all our schools. As the writer of this section I can say, that the matter is treated from a strict total abstinence standpoint. The School Boards were asked by the Board of Education to procure the necessary anatomical tables, chemical instruments, &c., for the scientific Temperance instruction, and 60 per cent. of the cost of that material is paid by the State. In the largest cities the Temperance instruction is organised very practically by assistance of the Municipal Authorities. Some special teachers, taking personal interest in this branch, are going on fixed times from class to class giving regular Temperance instruction. These teachers are, as to salary, &c., quite in the same position as the other ordinary teachers. The principal claims of the Temperance people in regard to the future are in the same direction; it is demanded: (1) That obligatory Temperance instruction shall be given once in a week at the two upper classes of common schools; (2) that the children shall have a special Temperance manual, where the effects of alcohol are expounded from Hygienic, moral and social standpoints; (3) that



in the cities special teachers shall be employed for this purpose; (4) that the scientific Temperance instruction shall be obligatory in all seminaries for training teachers for common schools.

In regard to the *higher schools* we have the order of the Board of Education, given in year 1904, that the teachers of Natural History and Hygiene may also give instruction about the nature and effects of alcohol. But the most encouraging results in higher school are yet reached by voluntary efforts. At first the Temperance Society of students took up the work among the studying young people in general, founding branches in most of the higher schools of our country. Recently the work has been transferred to a special society, by name "The Temperance League of the Studying Young People." This League has a branch in almost every higher school seminary in Finland. The membership is now about 8,000 which means, that over 70 per cent. of the whole population of our higher schools are members of said total Abstinence Societies. We have schools, where every pupil is a total abstainer. A very large percentage of these young people have voluntarily passed a special Temperance examination arranged by their own League or the National Temperance League of Finland. The principal text-book, which they have to study, consists of 62 pages only, but



includes all the most important points of the science of alcohol. The League has its own office, and is publishing its own paper for the members.

You thus see, that the future educated people, the officials, &c., will be total abstainers in Finland.

In *Sweden* the work is also going on encouragingly. Already in the year 1892 a royal circular prescribed the instruction about the effects of alcohol, to be given in the different schools. But this circular has been for many years a dead letter. The reports of the English Band of Hope work reached, however, also the temperance people in Sweden. A Swedish Central Union of Temperance Instruction was founded in the year 1901, and is doing excellent work, especially through the large Temperance courses, in which thousands are every time taking part. At the last course in Stockholm, where I had the honour to lecture, several members of the Government and Royal Family were present. The Union is preparing plans for Temperance Instruction ; it has its own office and its monthly paper.

The Temperance League of the Studying Young People of Sweden is yet older than the said League of Finland. Its membership is about 10,000 ; it has its own office and paper. In the teachers seminaries, 68 per cent. of the young men and 58 per cent. of the young women are members of the League.

Also in *Norway* a similar Union of Temperance Instruction has for some years existed. The number of children belonging to the juvenile branches of different Temperance societies is very large, but the students and pupils of higher schools are not so awake as in Sweden and Finland. Some years ago I wrote to the Board of Education in Norway asking information about the Temperance Instruction. I got the answer that already, in 1896, it was ordered by the Government that the teachers, when giving instruction in Hygiene, should tell about the effects of alcohol, but whether it was in reality done they could not say.

In *Denmark* the Teachers' Temperance Society is doing good work. Many years ago, a Temperance Manual was distributed to all teachers of common schools by the Government, and the Teachers' Temperance Society is procuring anatomical tables, demonstrating the effects of alcohol. But systematic Temperance Instruction is not yet given. The Temperance League of the Studying Young People has had a good start in Denmark.

Ladies and Gentlemen,—In some countries, for instance in Germany, there is too much discussion about the theories. It is discussed amongst others, whether it can be theoretically right to get Temperance Instruction in schools before the teachers themselves are all total abstainers. It is, of course

well to try to find out better and better methods, but let us meanwhile work on the old ground till we have agreed on a better. Some years ago I had occasion to show statistically, that the great European wars of the nineteenth century did not kill more people than alcohol murdered here in Europe in thirty years. Therefore we must do already, to-day, all in our power to get such an enemy out of our social life. Some people are always waiting for "better times" when a great reform can be carried out. Let us remember, that the better times are coming only as a result of our own work.

#### ON METHODS OF TEACHING HYGIENE AND TEMPERANCE IN PRIMARY SCHOOLS.

By Miss HOSKYNs-ABRAHALL, M.A.

I am deeply sensible of the honour of being allowed to address this Conference, and no less so of the extreme importance of the subject with which we are dealing.

The preparation of the youth of a people for life is, as every one realises, the greatest and most far-reaching of national undertakings; while of all branches of Education, devised with this purpose, there is none so fraught with great issues as Primary Education.

Besides a knowledge and training which will fit

the young to play their part well in our complicated scheme of society, a preparation for life implies a healthy development of the general physique and of the brain and nervous system of the child; it implies the inculcation of sound and healthy ideas about life; and it implies also the cultivation of resourcefulness, of the power to adapt oneself to changes of environment.

The time available for accomplishing all this—so far as Primary Education is concerned—is not long. We have, therefore, to economise carefully, and weigh the comparative value of subjects, activities and methods. Besides this, in dealing with such great numbers, it is necessary to adjust our plans of Education to the capacities and the prospects of the average man and woman. Viewed in this way, I venture to think our present curriculum and our present methods still leave something to be desired.

One chief fault in them is their want of practicality, of connectedness.

There is no *central body of principles*, no form of knowledge which serves as a basis and gives a standard of proportion and organic unity to the whole.

It is a serious mistake to suppose that *any* subject may be made to fill this position.

The subject must be one which first: concerns

everybody at every period of life; secondly: is not purely abstract, but affords scope for action, for practical work; and thirdly: stands in a *true* and *real*—not in a *fanciful* and *arbitrary*—centrality, with regard to human knowledge and human activities generally.

The one satisfactory central subject is assuredly *Hygiene*—understanding that word in its widest sense as *a knowledge of the laws and conditions of human well-being and the ordering of life in accordance with these*.

Assuming this to be the case, *How is Hygiene to be taught?* Much depends upon the *sequence* in which the different parts of this complex body of knowledge is presented; and, I think, in that sequence we must have a certain regard to the broad facts of recapitulation.

No doubt there are short cuts in the evolution of the individual as compared with the evolution of the race; still, we cannot afford, as it were, to kick down the whole ladder by which we have climbed.

The principles of the true sequence have long ago been set forth by Herbert Spencer; and it would be presumptuous perhaps to attempt to restate them.

We must cultivate *first* the activities required for direct self-preservation; then those connected with indirect self-preservation; then those necessary as



a preparation for parenthood; then those connected with citizenship; and lastly, those which have to do with the miscellaneous refinements of civilised life.

It is with the first four of these that Primary Education deals; and I may, perhaps, be permitted to speak of them more in detail.

Under the heading of *preparation for direct self-preservation* comes, above all, the formation of good personal habits, the physical training and training of the senses, together with a knowledge of the fundamental and practical principles of Hygiene, and practice in all those domestic arts which go to preserve health and maintain vigour.

Under the heading of *indirect self-preservation* would come a certain amount of general training in skill, the learning of reading and writing, &c., as instruments for gaining knowledge, an acquaintance with the more theoretic side of Hygiene, and a rudimentary acquaintance with general science, as also the inculcation and practice of that part of morality which has to do with self-control, fortitude, industry, alertness, cheerfulness, sympathy, and the like.

The preparation for *parenthood* must, I think, be an extension of that knowledge which was first acquired with a view to direct self-preservation, with some definite instruction as to the needs of

infants and young children, and further, some attention paid to the ideal of parental character—to the wisdom, unselfishness and watchfulness which are necessary to make a good father and mother.

Lastly, as a preparation for *citizenship*, we should have, on the one hand, instruction concerning the laws, customs and government of one's own country, and, on the other hand, the inculcation in every possible way of the pre-eminently civic virtues—justice, honesty, benevolence, public spirit, &c.

If every so-called "subject" were tested by its applicability to one or the other of these purposes, we should find that several might be eliminated. Moreover, by taking care not to introduce a "subject" until such time as the child is ready for the activities involved, we should get more done in a shorter time than is now the case.

Yet, again, by the application of these principles, we should often see how to make beneficial changes in the manner of actually teaching an individual subject. Take, as a comparatively simple subject, that of *Drawing*.

If drawing were taught in our Primary Schools as part of sense and memory training, and part of the training of the hand, and were adjusted to the different stages of nervous and muscular development passed through in school life, we should get real and satisfactory results from our drawing classes.

I would urge then, in the first place, that there should be made a thorough revision of the "subjects" taught in Primary Schools, and that those which cannot be shown to subserve in a reasonable way, one or other of the four great aims mentioned above should be rejected. I would urge that subjects not hitherto included in the curriculum, which can be shown to be necessary to these purposes, should at once be included, be made compulsory, and be given the place which is proportionate to their importance in actual life. Of such subjects, Hygiene—(as composed of that part of biology, and sciences related to biology which immediately concern human life)—will prove to be the chief.

The sequence above given, I should like to point out, is one of the *preponderant*—not of the *exclusive*—importance of different parts of education, at different stages of development. It goes without saying that the smallest child may learn to be unselfish and fair, may have his tiny lessons in science, and be encouraged to observe; and may be taught literature and history in simple suitable forms.

It also goes without saying that preparation for direct self-preservation cannot be made complete in elementary school-life. Still, speaking in a broad and general way we have here the natural succession of subjects and occupations.

It follows that in a scheme of education according to nature, as I would call it, the *first place must be given to Hygiene*. Not that the children would know it under that formidable sounding name, for it is most highly desirable that the earliest knowledge and discipline connected with health should be accompanied by the most joyful associations possible. Joyfulness with young children is almost invariably conditioned by activity ; to be happy they must be doing. And in early years the training in the principles of health should be not only by daily healthy practices, but also by incidental teaching in connection with various pleasant occupations, which mimic, or where possible are the tiny counterpart of actual domestic and other operations. These are a delight to children, Simple and even trivial as such occupations may appear at first sight, it requires well-trained, experienced teachers, having a considerable acquaintance with childish capacities, a great readiness to seize on good opportunities, and a very clear notion of what they intend to make out of these opportunities.

This brings me to what I believe to be an essential point. Of all educational work, the teaching of infants and the lowest standards in primary schools, is that which requires the most *careful planning*, the most *skilful* teachers, and the greatest *number* of teachers. It is the youngest children who suffer

most from being massed together in large numbers. The *younger the children the smaller* ought to be the *classes*.

It is what happens in the earlier years of school-life that makes or mars the school-child, and thereby helps to make or mar the grown man or woman. It is also during their earlier years that children are most liable to be misunderstood or mistakenly treated. Therefore, alike because of the importance and of the difficulties of early education, it is here that we must apply the highest skill and experience at our hand—here rather than later on in school-life.

In the infant school I believe we should do right to make *Hygiene*—that is, the development of the physique of young children by means of appropriate activities, the formation of good habits, and an empirical knowledge of the principal laws of health—practically the only “subject.” Every so-called “subject,” or rather, every activity, should bear a definite relation to this, and it is contended that subjects which cannot be so brought into relation should be discarded.

A regular time-table in the infant school is, I believe, generally recognised as a mistake. Young and inexperienced teachers no doubt require to have their employments mapped out for them to some extent, but the really skilled teacher is only hampered by them.



On the other hand care and pains should be expended on keeping a *record* of work done and results obtained. This record should be constantly referred to, as only in this way can success or failure be accurately estimated, due proportions in the various activities observed, and the necessity for making changes properly gauged.

Since the time is too short to allow of my setting forth what results we may fairly aim at obtaining by about the age of 8, or going into details from the child's point of view, may I be allowed to refer you for these to a pamphlet on "Child-Nature and Education," published by the Manchester and Salford Sanitary Association, which may be obtained at the Literature Stall.

About 8 the child takes a new departure. I would suggest that while Hygiene continues to be the basis of all his education, or, to change the metaphor, forms the thread upon which the whole is strung, there should now be introduced something more resembling the kind of work hitherto obtaining in schools. A certain amount of activity ought now to be directed into such channels as will awaken a desire to read and write. Natural history is perhaps the most likely line. The teacher will be less and less willing to tell what a child cannot discover for himself. I should like to emphasise the fact that it is a mistake to make so much of reading

and writing for their own sakes; the first and strongest idea connected with them should be that they are means to an end or many ends. If a child did not greatly wish to learn to read and write before he was 9 or 10, it might, except in a few rare cases, reflect discredit upon the teacher.

The time-table of the earlier standards should, I think, have a part of the school day plotted out as it is now for different subjects, though this should be done with more regard to *proportion* and *rest* than now.

The remainder of the time should be spent much as in the infant school, the occupations being more advanced, reasons being sought more closely, and plenty of opportunity being given for free physical exercise. Direct self-preservation was the main intention of the work in the infant school. Now *indirect self-preservation* is somewhat more to be considered. In modern life this means principally knowledge, dexterity, and resourcefulness.

This extension of education should everywhere be derived from something that has gone before, and should also be so arranged as to lead up easily to other kinds of knowledge when the time comes for further extension.

For the position of the child at 12 years of age, may I be allowed to refer you again to the pamphlet, "Child-Nature and Education."

In the higher standards self-preservation yields in importance to preparation for parenthood and citizenship.

In this country, where the education of the great mass of the population is brought early to a close it is not possible to treat this part as fully as it ought to be treated. The boy and girl of 13 and 14 have not the capacity of those of 15 and 16. Still, very much more might be done than is the case at present, if we had, in the earlier stages of school life, an education such as I have tried to outline.

The present system of education, through book-work, is, I believe, if applicable at all to children in its entirety, only applicable properly during the last year of school-life.

There are two points more on which I would venture to say a few words. The first is the question of *Temperance*.

Fundamentally, Temperance is an affair of *self-control*—of the self-control in virtue of which a man can make his habits square with his knowledge. In order to acquire control it is not sufficient to submit pleasantly to the self-control of a teacher, and I believe that a scheme of education in which *action* plays a large part would afford more and better training in this power than any other. Few things are more important throughout the whole rearing of the young. But besides discipline in

self-control it is, I think, necessary in the present state of society that in the course of school-life children should be taught directly what are the evils which follow on the habit of taking alcohol, and be definitely warned against forming that habit. I should very greatly deprecate the general introduction into schools of reading books on Temperance, or of the kind of teaching which many of them contain. The subject is too sad and sordid to be presented to children in any emphatic way, until they have acquired a fair amount of other and more delightful knowledge which may temper it. Still, even in the infant school, beer, and spirits and wine might be referred to—in connection with some “play” as being hurtful things which injure people; and as the child learns to use his senses and enjoy all kinds of muscular activity, and to be proud of his dexterity, it will be useful to remind him that the effect of alcohol, and indeed also of nicotine, is to impair, if not to ruin, all that. The physiology lessons will, of course, afford still more scope for this instruction. It is, however, during the last two years of school life that these somewhat scattered (yet systematic) admonitions and teachings should be gathered up and emphasised in a forcible way, and connected *very closely* with that part of education which has most direct reference to citizenship, and to preparation for *parenthood*.

The second point on which I should like to say a few words, is the pressing need of a reform in our training of teachers. We need in them a stronger outline of the knowledge of the child, of his physical structure generally, and of the brain and nervous system, and their development somewhat more particularly. It is astonishing to reflect that of these subjects there are still many teachers who know absolutely nothing. We need in them a thorough working acquaintance with Hygiene, and an enthusiasm for this work and its possibilities. They should know too *how* to correlate it as a subject with other subjects; and what is still more important, should know how to deal with it as the basis of all education in the Infant School.

I would suggest (i.) that a series of demonstrations forming a "stop-gap" course for Teachers should be given all over the country by competent persons. A scheme for such demonstrations has been drawn up, and formed part of a memorandum presented last year to the President of the Board of Education by the Committee of the Medical Profession for the furtherance of teaching in Hygiene and Temperance, by the British Medical Association, and by the Board of Hygiene and Temperance. (This Memorandum can be obtained from Messrs. Simpkin and Marshall, London.) The course of lectures and demonstrations, outlined in the scheme



has already been given at the Birkbeck Institute under the direction of the Board of Hygiene and Temperance. Students who have taken this course to the satisfaction of the Board have obtained appointments as Teachers of Hygiene.

(ii.) That courses of one year should be held for teachers now in their last year of training.

(iii.) That longer courses should be organised for teachers now beginning their training.

By this means at the end of 1908, we should have a body of teachers, not only ready in mind and opinion for this reform (I believe so much is the case already), but actually ready to begin work along these lines.

By taking *at once* some definite practical steps of this kind we should also arouse public attention more fully, and educate public opinion to realise the value of an education based on Science and on common-sense.

### THE TEACHING OF HYGIENE AND TEMPERANCE IN SECONDARY SCHOOLS AND UNIVERSITIES.

By Sir VICTOR HORSLEY, F.R.S.

SIR,—After the very enthusiastic and stirring address which we have just heard, it is a little difficult for me to come before you and offer you a little bread and water. And yet it is with funda-

mental food of that kind that this subject must be nourished. The object of this Conference is, primarily, to hear from the Representatives of the Colonies what is done there in the teaching of Hygiene and Temperance. We have had the opportunity of gaining much information this morning ; now, this afternoon, we want to see how we are going to utilise that information in our own country. We want also to make up our minds as to what we are going to call education. Miss Hoskyns-Abrahall has given us a wonderful presentation on that point. I believe that all here wish that no citizen of this country should be called educated unless he has been trained in the science of common life, and that means Hygiene and Temperance. Although apparently a simple question, when we put it to the teachers of this country, we find that there is much involved in its proper carrying out. It is not my purpose to speak of primary education : that has already been well done. It is my purpose now to say what we can regarding secondary education. We stand, since 1902, in a totally different position. Secondary education now is definitely under the Board of Education. Primary education is, too. The moment you study this subject you find that what applies to one applies to the other, and that both converge to this issue ; that you have to introduce certain salu-

tary reforms into the Board of Education. I say reforms advisedly, and not with any criticism of what the Board of Education has been able to do in the past with an imperfect staff. I want to suggest to you this afternoon that the essential reform within the Board of Education is that there shall be such advice given to the Minister of Education as shall enable him to grasp the principles of scientific education for the national requirements at the present moment of all the children in this country. And when I say "national requirements" I mean the needs of the children which can be met by the State. I have placed some diagrams by the the door. The first is the anthropometrical survey which the Physiological Deterioration Committee asked for, and which Sir Henry Campbell-Bannerman said the other day was a subject which was certainly very laudable, but it must be approached warily. I have never been able to find out why warily. I should have thought a child was not a dangerous thing at all, and if you wanted to measure it nothing could be simpler. But the Prime Minister says we must approach it warily. The next point is that every child shall be medically inspected. Thank God the House of Commons has decided in favour of that. It has not decided in favour of the subsequent medical examination of children, but that will come. Lastly, it is the

business of the State to see that the Code, the curriculum of education, is arranged, as Miss Abrahall has said, on a scientific, commonsense basis, and that will necessarily include the Hygiene of common life and instruction in Temperance. If that is our common opinion this afternoon, what has been done for the children in secondary schools of the country at the present time? Where do they stand? We have no records, and yet we know there are many secondary schools in which boys and girls are weighed and measured; an anthropometric survey is being made. But what is the use of records like those, which are simply the property of the headmaster and of no use to the public? Here we are conferring with our Colonial colleagues, yet we cannot tell in what condition the children of the United Kingdom are, as compared with those of the nations which now form part of the British Empire. And that is because we have no central mechanism, no central office whose duty it should be to collect and correlate these facts and report upon them to the local education authorities. On the middle diagram I have placed together the duties of an officer who should be within the Education Department as principal Education Medical Officer, exactly parallel to the Medical Officer in the Local Government Board. And the first of his duties would be this report on the physical condition of the children of the nation.

The second duty would be to report on the medical inspection which many local authorities are carrying out now, but which every local authority, we hope, will carry out after Mr. McKenna's Bill or Mr. Ray's Bill, or whatever form the law takes. We want the same medical authority in the Board of Education to find out what has been done at home and abroad, and we want him to be in the Board of Education to give first-hand medical advice on the teaching of Hygiene and Temperance. We, in our deputations to the Board of Education during the last four years, see perfectly well that we are not going to make any headway unless we have expert advice at headquarters. And I was delighted to receive from Mr. Thorne the programme of a meeting which I shall attend shortly at Canning Town, the programme of a meeting which gives precisely the same position as that for which the British Medical Association and the profession have so long contended, namely, this expert department within the Board of Education and the correlation of this information for the sake of the children of the country. So that precisely the same views which are now advanced medically are held by the Progressive party in the House of Commons. And in confirmation of that I may refer some of those here who may not have noticed it to a report of a most interesting meeting which Mr. Charles



Roberts organised in the House of Commons when several of us met those members of the House who are particularly interested in forwarding the health and Temperance of the nation.

Now, to come to the actual work in the secondary schools, I shall not waste your time or spend any of my own on a discussion of educational details. I want rather to take you to a higher standpoint. Because, after all, we may decide this afternoon what is the most practical way of dealing with the question from an administrative point of view, but it is for the teachers to decide what is to be the educational method of applying the principles which we agree to. It occurred to me that although we were practically of one accord on the subject of health and Temperance, it would be an interesting thing to know what is the actual practice in the large secondary schools of the United Kingdom. I therefore wrote to the headmasters of all the large secondary boarding schools—few in number, but enough to give accurate statistics. And I asked them whether it was the custom—because, after all, the whole Temperance question turns upon alcoholic custom or non-custom—for them to give alcohol to the children in their schools. The results I have put in a percentage form on the coloured diagram, whereby you will find that at the present time 72 per cent. of our secondary schools may

truthfully and honestly be described as total abstinence schools. I had no conception that the common sense and scientific position on this subject had reached such a development. To whom do we owe that? To the teachers. We cannot, in a meeting like this, sufficiently express our obligation to the headmasters of our secondary schools, because they quite quietly have been training the nation in temperance, by precept and by example. Then with regard to the 28 per cent. at the top of the diagram, it is perfectly astonishing what a senseless habit has persisted in some schools in this country. I need hardly say that those are the old schools, the old-established schools, where customs freeze up the intellect very often. I say what senseless conditions prevail in some schools. There is one public school in this country where 50 per cent. of the boys are given alcohol, and all the boys are given alcohol on six Saints' days in the year. Of course we cannot conceive how any man, at this time of civilised life, could do such a thing. But still, when we reflect that it is simply the continuance of an ancient custom, it, of course, becomes obvious. In another public school the percentage is as low as 25, why those few boys should have any alcohol at all does not appear. Again, all masters—every one—are agreed that boys below 15 should not have any alcohol; there is no doubt about that. But

why, directly a boy becomes 15 years of age, alcohol is no longer injurious to him I cannot understand. To my mind, it remains injurious, especially as then he is passing through a most critical period of his life. So I take it that in the evolution of human progress, that 28 per cent. of schools will shortly shrink to nothing. If the masters are doing this, what are the parents doing? This again, is a point which a conference like this may well consider. Several of the masters who have written to me most interesting letters on the subject, have pointed out to me that boys who have left the schools and gone to the universities or have entered into life, have begun to drink very often on the suggestion of their parents. We hear a great deal about parental responsibility when the subject of feeding primary school children comes up; but we do not hear much about parental responsibility when the question of drinking comes up. And yet, to my mind, that should receive as much public attention as the other question. We have heard of some of the difficulties of introducing the teaching of Hygiene and Temperance into primary schools. But the one difficulty which Mr. Sharples alluded to is of the greatest importance, and that is the difficulty with regard to the inspector. I have drawn attention to that, like Mr. Sharples and others who are interested in the subject. Why is the inspector a diffi-

culty? Because of the education which is given in our secondary schools. And why is the education in our secondary schools inefficient, from a national standpoint? Because of the universities. If the universities demand a certain type of education, the secondary schools must give it or their boys will not get scholarships; and I think this meeting is hardly aware that at the present moment in this country the two sides, as you may say, of education—the scientific side, and the literary side—are absolutely divorced by the system of our old universities. There is no sense in it.

If you study that interesting volume, the "Directory of Secondary Schools," you will see what I mean. Take the examination, as a test, known as the Higher Leaving Certificate of Oxford and Cambridge examinations. You will find that those who have gone through a literary examination, who probably know nothing of science, are ten to one of those who have had any scientific education; why do not they all have a scientific education? There is no reason at all. It is only custom, which is as fatal in our old universities as the custom of alcohol is in the public at large. And if you compare the schools you will see that of our old-established schools practically none take any distinction in science. You have to go to the modern schools, the new High Schools, before you begin to reach

the boys who have been trained in the elements of scientific knowledge to fit them for future citizenship.

To sum up, it is clear that the whole system of education requires revision. It requires revision from a scientific standpoint, or from what you may call the medico-scientific standpoint. We want the principles of Hygiene taught to every child in all schools. That, we know, will bring with it the further teaching of Temperance. I suggest to you that we cannot reach this point of reform in education until you have reformed the Board of Education, until you have put into it that administrative machinery which will carry out all these educational points, and at the same time the social point upon which the attention of the House of Commons is now so firmly fixed.

The CHAIRMAN: It now becomes my duty to say that the Conference is open to general discussion, and in order that the discussion may be kept to the point, I will move formally: "That this Conference is of opinion that to adequately meet the responsibilities of the State towards school children, it is essential that a Medical Department should be instituted in the Board of Education." In making this motion, I regret very much to say I must leave this Conference at 4.30, because I have to take the chair at an international meeting elsewhere on the subject of the international teaching of drawing. Mr. Pearce Gould will then take my place.



Sir LAUDER BRUNTON, F.R.S., who seconded the resolution, said they were all agreed on the necessity of looking after the children. The House of Commons was perfectly right in insisting upon the medical inspection of children on their entry into school; he trusted that it would be seen to be also necessary to inspect the children throughout their course at school; it must be done by the co-operation of teachers and of medical men in each school. There should be a medical man in each school, who would be responsible for the examination of the children, and should report to the local authority. But these reports should become public property, and be forwarded to a central authority, who should supervise these inspectors, and should be in co-operation with the Board of Education. Too long had the minds of the children been alone developed, and their bodies neglected, but the mind could only act through the body, and they were awakening now to the necessity of attending to the bodies. With regard to the resolution, it would be said, "We cannot afford it. We are all groaning under an income tax which is now a peace tax, and are told we must have old age pensions"; but that was beginning at the wrong end. They wanted to secure that children shall be well fed, well cared for, taught how to avoid illness, to secure a strong and healthy rising generation who would be able to lay up old age pensions for themselves. This would lessen the expenditure on perishing or crippled children, on hooligans, criminals and wastrels, on those too weak to accumulate through life for their old age. Much expenditure on hospitals would be saved; they would have valuable data collected regarding the children, but this could only be done efficiently by having a medical department instituted at the Board of Education.

The Hon. Mr. JENKINS. (Agent-General for South Australia) supported the resolution. He entertained somewhat advanced views as far as medical knowledge and instruction were concerned, not only in connection with children, but with adults. Those present knew that not only the child's health needed enquiring into, but also the teacher's health, though the latter often would not admit that they needed medical assistance. But medical inspection of schools would meet this need. An irritable teacher was the worst teacher for a class, and yet irritability and bad temper were the result of overwork and ill-health. With regard to the question of expense, nothing was too expensive, as far as education is concerned, provided the expenditure was wisely directed. Coming from an Australian State, he did not thoroughly understand English educational systems. To educate children in Temperance principles it was essential to have temperate teachers, well versed in Temperance and who would practice what they preached. Therefore it was as necessary to have a system of educating the teachers in Hygiene and Temperance as to educate the children in those subjects.

As one who held the position of Minister of Education in one of the Australian States, he would say that they often tried to reach the goal by a short run, instead of taking time over it. A Local Option Bill failed to pass, but a Bill which he brought forward providing fifteen years grace before local option came into force was carried. The other States were still trying to get local option, while his own State now had it in force.

Mr. ANDREW JOHNSON (Chairman of the Essex County Council), speaking of what was being done in an English county, said they had only two Hygiene and Temperance teachers which was not

a quarter enough. They could not touch the Secondary Schools nor attempt to reach the large schools in the big urban districts which contained many parishes of 100,000 inhabitants and over. They trusted to the managers to appoint teachers, competent to give Hygiene and Temperance teaching. These two teachers, one a man and the other a woman, divided the county into districts, and had been teaching both children and teachers for the last two years, and they were thoroughly satisfied with the results.

Dr. KIMMINS expressed his sympathy with the proposal before the meeting. To teach Hygiene well a person must have a very wide, scientific knowledge of the various branches, which make up this subject. A very important practical problem was whether Hygiene teaching should be in the hands of the ordinary teacher or in the hands of a specialist teacher. He thought they would have to rely very much upon the specialist teacher. Then, again, was Hygiene to be treated from the education point of view in the school or from a purely national point of view? Herbert Spencer would say the latter, if so, at what stage would it be given to the greatest possible advantage? Should they start very early in the school, or concentrate later on, so that children at the best age for education should have this thorough knowledge of the laws of health?

Dr. Kimmins then referred to his investigations into the state of atmosphere in the London theatres, and said that, speaking generally, there had not been great progress since the days of Dr. Angus Smith. How to make Hygiene teaching most effective in our schools was of the most supreme importance, and they ought to concentrate attention on that.

Sir THOMAS FULLER (Agent-General for Cape

Colony) said that in the county he represented there were certain elementary difficulties which were really serious. They had yet to learn the lesson of getting fresh air and pure water in the country. Pure water was scarce throughout the country. The dry season converted the rivers, the only source of water supply for the up-country towns, into a series of pools, scarcely enough to supply the common drinking necessities of life. He remembered a bath being advertised for 10s., and then found, on looking at the water in it, that a number of shillings had been previously earned before he got to it. Slowly these difficulties in the way of personal Hygiene were being removed, works for water storage were being erected, which would also serve to promote agriculture. He looked for a true social citizenship that should possess every man, the doing of whose duty shall be something sacred to him, and they would find ere long that the topmost crags of duty were close upon those shining tablelands, to which our God himself had moved.

Dr. FLETCHER said he had never met any one who knew the facts of the case who would not admit that it was desirable in the highest degree for such instruction to form a part of the curriculum of every public school. But they needed to put the teaching of this subject on a wholly different footing. Any system of education must discriminate between the mode of teaching given in the primary, as compared with the secondary, schools. The reasonably didactic method was more suitable for young children.

There had been very little constructive criticism or suggestion that afternoon, and with regard to the very important proposal suggested, reference to



what was done in Ireland might be useful. All who taught Hygiene recognised the need for fundamental scientific knowledge on the part of students. This had been recognised in Ireland six years ago, and a programme, drawn up by the department of Agriculture and Technical Instruction, was grafted on to the secondary education system. There was scarcely a secondary school in Ireland which was not well equipped with a most excellent laboratory, and experimental science was being taught on the soundest lines. Instruction in Hygiene would be useless if it was wholly didactic, it must be accompanied by practical work of the soundest description. In Ireland there was a four or five years' course. There were no examinations, but the work was inspected. The Intermediate Board, however, had an Honours Examination. The crux of the whole question was "What about the teacher?" Should the subject be put into the hands of a special or the ordinary teacher? He thought it was to be solved in the latter way. Summer courses of instruction were held for teachers of secondary schools and 700 or 800 availed themselves of these opportunities, and the success of the teaching of these subjects in the schools had been infinitely better than they had thought possible. The course in Physiology and Hygiene, though lasting only a month at a time, was spread over five years, and the teaching of these subjects by the teachers was prohibited until these times of attendance had elapsed. He hoped that with further growth of public opinion, the subject would be introduced into every girls' school.

Mr. PICKLES (President of the National Union of Teachers) associated the teachers to the full in the desirability of the teaching of Temperance and



Hygiene to all children. These were essential subjects to be learned, example must follow and accompany precept, otherwise very queer ideas were picked up, as, for instance, in the case of the boy who said the liver was an "infernal organ." The children of the working classes all over the country had no knowledge of what should be done in the common circumstances of life.

In reading carefully the memorandum of the Committee of the medical profession he was struck with the marvellous capacity of the children from 3 to 7 years of age, as viewed by the medical profession! If they had experience of teaching a class of sixty children of that age, they would learn what was practicable and possible to teach in these cases.

The Board of Education needed reforming, and the stupid system of special grants wanted sweeping away entirely, so that more freedom could be given to teachers and local educational authorities to devise a scheme of Hygiene and Temperance teaching suited to the capacity of these young people. Out of the six million children under instruction in the elementary schools, two million were still taught by *unqualified* teachers, who were in charge of 61,000 classes. There was a danger in this country of dissipating their energy by the concurrent pursuit of too many reforms. To do justice to Hygiene, well-qualified teachers for smaller classes were necessary, and the maximum age of school attendance must be raised. The basis of aid in Imperial grants was at the root of the matter, so that authorities overburdened with educational rates might have some relief from the Imperial Exchequer.

He begged to enter a caveat against attempting too much with little children and so disgust them

with the whole thing. Two short ten-minute talks during the week on elementary Hygiene, might be quite sufficient. At the age of 12, boys and girls who desired, or deserved it, should be passed to secondary schools, and for the remaining two years could take up some special course of study with advantage. The mornings might be devoted to the ordinary curriculum, whilst the afternoons should be devoted to the teaching of Hygiene and Temperance, with physical drill, music and the æsthetic side of life. A complete revision and re-construction of the whole work of the school was urgently needed.

Mrs. LESLIE MACKENZIE (Edinburgh Education Committee) wished to know whether in England there was yet any training of the teachers for this work. In Scotland there were twelve centres for training teachers in the Laws of Health, as it was called, in addition to the ordinary training. A medical man was appointed in each place to give a systematic course of Hygiene. The teachers were also taken by him to visit the different schools, so as to make them conversant with the condition of the children in schools as to their health conditions, their eyes, ears, throats and so forth. These practical demonstrations proved far more valuable than lectures. Their medical officer had as part of his duty to teach the teachers how to find out certain conditions about their children. They were examined by a medical inspector appointed by the Scottish Education Department.

Professor SIMS WOODHEAD, F.R.S., said that this work could only be carried out through the co-operation of the teachers and the doctors. The questions that had come up for discussion had been very largely those on which the medical expert in

connection with education alone could give an authoritative opinion; and nearly the whole of the work in connection with the movement, necessarily had to be carried on by doctors. The Chairman of the Cambridge County Council asked what could be done to train teachers in the Borough Schools, in order to qualify them to take up this work. They wished further advice and wished the doctors to get into communication with the teachers. The result was that a scheme, as drawn up by the doctors and adopted by the Board of Hygiene and Temperance, had been the basis of the course of lectures given.

He had had 120 teachers, who had come for two hours every Saturday morning, at very great inconvenience to themselves. The development of the child, methods of dealing with children, and certain physiological facts essential for their proper education, were dealt with, especially from the practical side. They would now transmit the same knowledge, in a simpler form, to the children, and this was the only way in which the work could be carried out. Methods must be employed suitable to the intelligence of the children, but they must be carried out as the result of full knowledge and keen intelligence. Right impressions must be made, time after time, until habit was formed. It was an essentially physiological and medical question. Data must be collected as Dr. Leslie Mackenzie had done, in Edinburgh. Doctors would have to get that information and would have to advise the Education Department how that information was to be used, and how it could be applied in a better educational system. He had very great pleasure indeed in supporting the resolution. It was really at the bottom of the whole question of reorganisation of the

methods of education. The Board of Temperance and Hygiene looked upon the teaching of this as of far more importance than many of the subjects for which grants and special payments were now made. Conference and co-operation between doctors and teachers would be necessary, they must collect statistics and would ultimately supervise this department. Without this co-operation the advice to the Board of Education would never be the best possible.

The resolution was then put and carried.

A vote of thanks to the Chairman and those who had provided papers and given help to the Conference was then proposed by Professor SIMS WOODHEAD.

This was seconded by Mr. CHARLES ROBERTS, M.P.

Professor SIMS WOODHEAD said he would like to include the name of the Organising Secretary of the Association (Miss St. John Wileman) as the success of the Conference was largely due to her ability and energy.

The resolution was put and unanimously carried.

Miss St. JOHN WILEMAN and the CHAIRMAN suitably responded, the latter saying that he would send the first resolution to Sir John Gorst and that the resolutions (morning and afternoon) of the Conference, should be sent to the President of the Board of Education, and that steps would be taken to secure the publication of the proceedings of the Conference, if it was possible to do so.

The proceedings then terminated.





